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**NAVAL
POSTGRADUATE
SCHOOL**

MONTEREY, CALIFORNIA

THESIS

SOF AS A LEARNING ORGANIZATION

by

David Franta

June 2012

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13. ABSTRACT (maximum 200 words)

Special Operations Forces (SOF) units are expected to perform a wide variety of missions under diverse conditions. They are considered a strategic tool, and as such, the price for failure is correspondingly high. The speed of reaction and the degree of flexibility are the key traits of SOF units. As the task environment of SOF units has grown in complexity, the amount of information available has grown too. As a result, the channels and the people could become overloaded, and in unstable and fluid environments, a unit can become less flexible, less capable of learning and ultimately less effective. The ability to learn as an organization is very important in a long-term perspective

This study analyzes what facilitates a SOF unit as a learning organization characterized by a quick and flexible response to new information. The overarching framework is that “intelligent failure”, framing and reframing, balanced exploitation and exploration, environment of psychological safety, managers’ tasks supportive of organizational learning, learning teams, and mental models, selection of personnel, learning infrastructure, and being organized to learn are procedural and structural elements that facilitate organizational learning. Organizational learning of SOF units is fostered by an environment of psychological safety, and occurs through direct interaction. Establishing the processes that allow for safe reporting, and creating environment that supports open dialogue and discussion that encourage knowledge gain and transfer. SOF members’ ability to cross boundaries helps bringing in new ideas and insights, and tolerance of failure in support of learning supports transfer of knowledge, and allows for faster and broader learning.

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SOF AS A LEARNING ORGANIZATION

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ABSTRACT

Special Operations Forces (SOF) units are expected to perform a wide variety of missions under diverse conditions. They are considered a strategic tool, and as such, the price for failure is correspondingly high. The speed of reaction and the degree of flexibility are the key traits of SOF units. As the task environment of SOF units has grown in complexity, the amount of information available has grown too. As a result, the channels and the people could become overloaded, and in unstable and fluid environments, a unit can become less flexible, less capable of learning and ultimately less effective. The ability to learn as an organization is very important in a long-term perspective

This study analyzes what facilitates a SOF unit as a learning organization characterized by a quick and flexible response to new information. The overarching framework is that “intelligent failure,” framing and reframing, balanced exploitation and exploration, environment of psychological safety, managers’ tasks supportive of organizational learning, learning teams, and mental models, selection of personnel, learning infrastructure, and being organized to learn are procedural and structural elements that facilitate organizational learning. Organizational learning of SOF units is fostered by an environment of psychological safety, and occurs through direct interaction. Establishing the processes that allow for safe reporting, and creating environment that supports open dialogue and discussion that encourage knowledge gain and transfer. SOF members’ ability to cross boundaries helps bring in new ideas and insights, and tolerance of failure in support of learning supports transfer of knowledge, and allows for faster and broader learning.

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LIST OF ACRONYMS AND ABBREVIATIONS

AAR	After Action Report, also After Action Review
ANSF	Afghan National Security Force
CAS	Close Air Support
CONOP	Concept of Operation
NATO	Northern Atlantic Treaty Organization
PRT	Provincial Reconstruction Team
PSYOP	Psychological Operations
SEALs	U.S. Navy Sea-Air-Land units/personnel
SITREP	Situational Report
SODARS	Special Operations Debrief and Retrieval System
SOF	Special Operations Forces
SOP	Standard Operating Procedure
SSE	Sensitive Site Exploitation

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EXECUTIVE SUMMARY

The need to find innovative solutions and to learn as an organization is of utmost importance. Gaining insight into and understanding the dynamics of the organizational learning process within SOF is a key first step in illuminating this importance.

Being the part of larger military forces, SOF bear some of the same characteristics. SOF is not as strongly hierarchical and bureaucratically “tall” as a conventional military unit, but still is bureaucratic and hierarchical. Also, SOF’s peacetime engagement in a diverse set of activities, their smaller size, and their internal culture supporting bottom-up approaches, may support effect on organizational learning. On the other hand, a high operational tempo and high turnover of personnel may limit organizational learning as it may limit sharing knowledge and insights. Based on this comparison, SOF are better suited for organizational learning. However, in order to become a learning organization, SOF still needs to make adjustments or changes within their organizational structure and practices.

There are four areas with elements supportive of organizational learning, which are underutilized. When focusing on improvement of organizational learning, improvement in these areas, or changing approaches that are causes of this underutilization might be the first studied. These areas are: intelligent failure, learning teams, psychological safety, and learning infrastructure.

The data collected through the interviews yielded ten recurring themes related to organizational learning, these are:

1. Sharing knowledge through written reports and standardized formats is important but not sufficient for understanding the complexity and emerging challenges that are not anticipated.
2. Discovering insight through questioning and storytelling.
3. Sharing knowledge is effectively done through open and frank discussion.
4. Learning often requires crossing presumed boundaries.

5. New insights and innovative solutions are often generated outside of the team or unit.
6. Innovation is triggered by an inadequacy or deficiency in the unit.
7. Seeking new information is limited if the individual or organization is limited to a narrow set of missions.
8. The larger the unit, the less it is able to innovate and learn.
9. A delay occurs between the moment of insight and its application.
10. Useful training is not always applied in combat.

Thus, here are the answers to the research questions posed in this thesis:

1. *What are the internal and external conditions that facilitate rapid learning and flexible responses in a SOF unit?* Rapid learning is facilitated by an environment where people feel free to speak openly and safe to take interpersonal risks, and through direct interaction, i.e., open and frank discussion.

2. *What internal processes in a SOF unit can be established to facilitate rapid and flexible responses to new information and situations?* Establishing processes that allow reporting safe from retaliation and creating environments that support open dialogue and discussion are supportive to knowledge gain and transfer. Training personnel in collaborative skills and increasing their ability to cross boundaries helps bring in new ideas and insights, especially when the insights originate outside the unit. Conditioning personnel to see modest failure as a valuable part of learning supports the transfer of knowledge and allows faster and broader learning. The use of temporary learning teams improves knowledge gain and sharing.

Five recommendations aimed for a SOF unit trying to improve its learning were generated:

1. Create an environment of psychological safety
2. Make use of failures
3. Make use of temporary teams
4. Support sharing

5. Leadership's role in creating psychological safety: Model and reward learning and innovation

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I. INTRODUCTION

A. OVERVIEW

During the last two decades, majority of Special Operations Forces (SOF) units experienced an increased frequency in their deployments. This increase, plus the fact that SOF operate across almost the whole spectrum of conflict, the growing complexity of task environment, and the growing amount of information available through various channels, increasingly burden SOF units and operators. Under such conditions, a SOF unit is exposed to large amount of ambiguous and often conflicting information, complex problems to solve, and the need to react discriminately and effectively. The need to find innovative solutions and to learn as an organization is of an utmost importance. Gaining insight into and understanding the dynamics of organizational learning within SOF is the early step while addressing this importance.

This study attempts to take a balanced approach to research, and to examine SOF from the perspective of a learning organization. The background of the framework used rested upon the knowledge presented by major scholars relevant to the field of organizational learning. Author's motivation is based on the assumption, that the changing and evolving nature of SOF task environment together with its complexity requires SOF to be skillful in learning in order to stay contemporary.

The initial two chapters of this study present and describe the framework used for data collection and their analysis. The subsequent chapters describe a learning organization, conventional military organization, and SOF using the McKinsey 7S model for successful organizational change.

The analysis of the data collected yielded two sets of results. The data collected through survey produced a comparison of SOF subjects and allowed to demonstrate the differences in the presence of ten elements supportive to organizational learning amongst these subjects. The data collected through the interviews yielded ten recurring themes related to organizational learning in SOF.

B. PURPOSE AND SCOPE

The purpose of this thesis is to examine what facilitates the transformation of a Special Operations Forces (SOF) unit into a learning organization characterized by quick and flexible response to new information.¹ This research will focus on procedural and structural components that characterize learning organizations, the presence and use of such components within NATO and allied SOF units, and how they can be successfully replicated within SOF units that face the challenge of organizational learning.

The outcomes of this thesis will be descriptions of structural components, processes, and best practices that are useful for a SOF unit pursuing the aim of becoming a learning organization and optimizing itself to achieve better responsiveness to new information.

The scope of this thesis includes the NATO and allied SOF community; conclusions will be based on comparisons of the internal structural and procedural components of member organizations. The thesis will cover those processes and structural components that are related to organizational learning, both positively and negatively. A SOF unit, as part of a bureaucratic organization, is generally not well suited for organizational learning and innovation. As SOF units have different structures and degrees of system rigidity, their ability to learn and innovate will differ as well. In general, the closer to the bureaucratic end of the spectrum, the harder it is to innovate. Although this is a simplification, it is safe to assume that an organization relying mostly on rules and SOPs is constrained when it comes to innovation and learning. For instance, Jan Bloch observed that militaries were often unable to keep up with environmental

¹ In order to be able to discuss the issues of a learning organization, and to consider speed of learning, there is a need to ground the discussion on a theoretical framework. For a learning organization, David Garvin's definition, "A learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights." David A. Garvin, "Building a Learning Organization," *Business Credit* 96, no. 1 (1994): 20, and for a speed of learning Ralph Catalanello's from Northern Illinois University describes the speed of learning as "how fast organizations are able to rotate around the learning cycle," and the cycle as "planning, implementation, reflection." Ralph F. Catalanello, "Speed, Depth and Breadth: Assessing Learning in Learning Organizations," *Developments in Business Simulation & Experimental Exercises* 21 (1994): 143, will be used.

changes.² Similarly, coalition troops struggling to adjust their approaches to situations in Iraq or Afghanistan underscore the importance of flexible learning. With faster organizational learning, a SOF unit can become more effective. In a security environment where the aim is to overcome the enemy, one of the proven principles has always been surprise; innovation helps create surprise. The aim of showing up on the battlefield unexpectedly, or with something new, is much easier to reach once an organization improves its learning ability. The question is: Can a SOF unit overcome the challenge of its bureaucratic origins and become a learning organization?

The focus of this study is on SOF tactical units. There are differences among NATO and allied SOF units, as far as placement within the command structure is concerned (e.g., each chain of command contains a different number of levels, and these levels differ in nature, which in turn shifts responsibilities and authorities vertically); also the layout of their task environment differs greatly.³ More important, the factors outside the unit are beyond the control of unit leadership. Learning happens within the unit itself.

Many factors such as education, training, common practices, unit size, and deployments have an influence on the quality of unit members and their experience. Variations among units may offer some explanations for the cases and data gathered here. However, this thesis will not cover external conditions, but will focus on the unit level only.

C. BACKGROUND

SOF units are expected to perform a wide variety of missions under diverse conditions. They are considered a strategic tool, and as such, the price for failure is correspondingly high. As stated in the 2008 NATO SOF Study, “SOF operates outside the realm of conventional operations or beyond the standard capabilities of conventional forces, thus providing a solution to extraordinary circumstances of political interest when

² Jan Bloch, *Future of War* (Boston: Ginn & Company, 1903).

³ Levels of command structure above the unit level range from directorate, through headquarters, to command.

no other option is available.”⁴ Examples of unsuccessful SOF operations where the reasons for failure could have been avoided are unfortunately numerous. Operation Eagle Claw or Operation Urgent Fury, where inappropriate assessment and planning resulted in unnecessary loss or mission failure, are examples of “learning the hard way.”⁵ Yet both examples, under the scrutiny of later investigations, revealed that the lessons learned had actually been learned before. As a strategic tool, SOF units operate beyond the standard capabilities of conventional forces, under extraordinary circumstances. To hone such tools by trial and error becomes expensive over time. In other words, there is increasing demand for quick adaptation as both the enemy and conditions change rabidly in contemporary conflicts. Under such conditions, the need for a SOF unit to learn quickly can hardly be overstated.

Not all SOF units are created equal, and during their existence they go through different stages of development. There are vast differences amongst SOF units, including size and internal structure (i.e., number of teams, companies, and battalions).⁶ They have different placements within the command structure and vary in experience and amount and quality of equipment. Fundamentally, they differ in their primary purpose and national tasks. There are differences in selection procedures, recruitment pools, and personnel policies. Similarly, their performances vary over time. Some units are deployed more often than others, and consequently have more opportunities for gathering

⁴ North Atlantic Treaty Organization, NATO SOF Coordination Center, “*The North Atlantic Treaty Organization Special Operations Forces Study*” (Mons: 2008), ii.

⁵ Operation EAGLE CLAW, which took place in 1980, was an unsuccessful attempt to rescue 52 American citizens held hostage in Iran. Due to its flawed planning and preparation, unreasonable operational security that prevented sharing information amongst the units that constituted the task force and limited rehearsals the operation resulted in eight dead and four U.S. soldiers injured while no hostages rescued. Follow-on investigation revealed the avoidable mistakes and recommended structural changes within U.S. SOF. Operation URGENT FURY in 1983 was primarily aimed at rescuing over six hundred American students held hostage by Marxist Revolutionary Military Council that overthrown the government of Grenada. Although the overall result was a success, in this operation the U.S. SOF suffered heavy losses mostly due to poor planning and coordination and gross intelligence failures. Further investigations also revealed poor communications and equipment failures. Susan L. Marquis, *Unconventional Warfare: Rebuilding U.S. Special Operations Forces* (Washington, DC: Brookings Institution, 1997).

⁶ The differences in internal structure are very frequent. The numbers of the members in the smallest element (team, platoon) range from four to 16. These numbers originated from units’ history, original purpose (i.e., original core missions), and are also influenced by the internal structure within services within which the unit originated.

experience. Others have had more time to send people to schools and courses. But as units grow in size and maturity, they are likely to become more bureaucratic (configurations suitable for environment ranging from stable simple environment to stable complex environment); thus they are likely to become more rigid and less flexible as they strive to maintain certainty in complex environments.⁷ As the environment of a unit grows in complexity, the amount of information coming to the unit grows, too. As a result, channels (and people) can become overloaded. Since reaction speed and degree of flexibility are the key traits of SOF units, in unstable and fluid environments a unit can become less flexible, less capable of learning, and consequently less effective from a long-term perspective.⁸

D. RESEARCH QUESTIONS

This thesis focuses on two primary questions to better understanding what facilitates organizational learning within SOF. The questions this thesis seeks to answer are:

1. What are the internal and external conditions that facilitate rapid learning and flexible responses in a SOF unit?
2. What internal processes in a SOF unit can be established to facilitate rapid and flexible responses to new information and situations?

Drawing from a diverse range of subgroups within the SOF community, this thesis will provide insight into organizational learning and the similarities and differences among units. The goal is to improve understanding of the internal dynamics of organizational learning within the SOF community.

⁷ Thomas K. Adams mentions the structural problems in U.S. SOF in the late 80s, after the SOF grew in size. Thomas K. Adams, *U.S. Special Operations in Action: the Challenge of Unconventional Warfare* (London: Frank Cass, 1998), 204–206.

⁸ Bureaucratic institutions are not suited for an unstable environment. Mintzberg mentions inadaptability as one of the weaknesses of bureaucracy. His notion is that bureaucracy is not a structure suitable for innovation, when there is a need to innovate he suggests a change of configuration. Henry Mintzberg, "Organization Design: Fashion or Fit?" *Harvard Business Review* 59, no. 1 (1981): 7–9.

E. RELEVANT LITERATURE

The literature on SOF and the military as learning organizations is limited, primarily focused on learning infrastructure and the education of soldiers and military leaders. Because of this dearth, this thesis will synthesize military organizations with learning organizations developed in the business literature. When existing articles cite the U.S. Army as a learning organization, one needs to be sure how “organization” was defined.⁹ Otherwise, such a claim might be more wishful thinking and misperception of terms than an accurate representation of the current state of an organization.¹⁰ In other words, even when an organization perceives the need for organizational change towards becoming a learning organization, some of the conditions that facilitate organizational learning are hard for a large, bureaucratic organization to achieve. The easier changes have been already considered and quite successfully fielded. Examples of such successes are the extensive use of collaborative environments as learning infrastructure, or new approaches to military education that foster critical thinking and creativity.¹¹

F. FRAMEWORK

The literature on organizational learning offers extensive insight into how non-military and non-SOF organizations learn. While SOF units do have specific task environments, some of the practices of a learning organization still apply.

The theoretical framework for this research builds on these practices and further particularizes the specifics of the SOF unit as a learning organization. While initial assessment of components suitable to SOF specifics may help to narrow the focus within

⁹ In their respective recent works, both Alvaro Gonzales and David Paroby & Darin White provide descriptions of current state of affairs within the U.S. Army from the organizational learning perspective, and state that current U.S. Army is a learning organization. Alvaro M. Gonzalez, “The U.S. Army: A Learning Organization” (April 12, 2010): 12. Available at SSRN: <http://ssrn.com/abstract=1588284>. David Paroby and Darin White, “The Role of Shared Vision and Ethics in Building an Effective Learning Organization,” *Southern Journal of Business and Ethics* 2, no. 19445474 (2010): 140.

¹⁰ As a description of a military as a learning organization could serve Adam Harmon’s article describing the traits that have made Israeli Defense Forces a successful learning organization. For further reference, please see. Adam Harmon, “Living in a Democracy. Working in an Autocracy,” accessed September 09, 2011, <http://www.lonelysoldiermemoir.blogspot.com/>.

¹¹ Richard Chilcoat, “The Revolution in Military Education.” *Joint Force Quarterly: JFQ* no. 22 (1999): 62–63.

organizational learning, further focused research should confirm or deny the presence and applicability of these components. In other words, the overall framework of this thesis is predicated upon a broad comparison of structural and procedural components in order to identify and isolate the elements that facilitate organizational learning for SOF units specifically.

Certain procedures may be applied to aid successful organizational learning within a SOF unit. These enabling procedures allow the SOF unit to avoid learning traps.

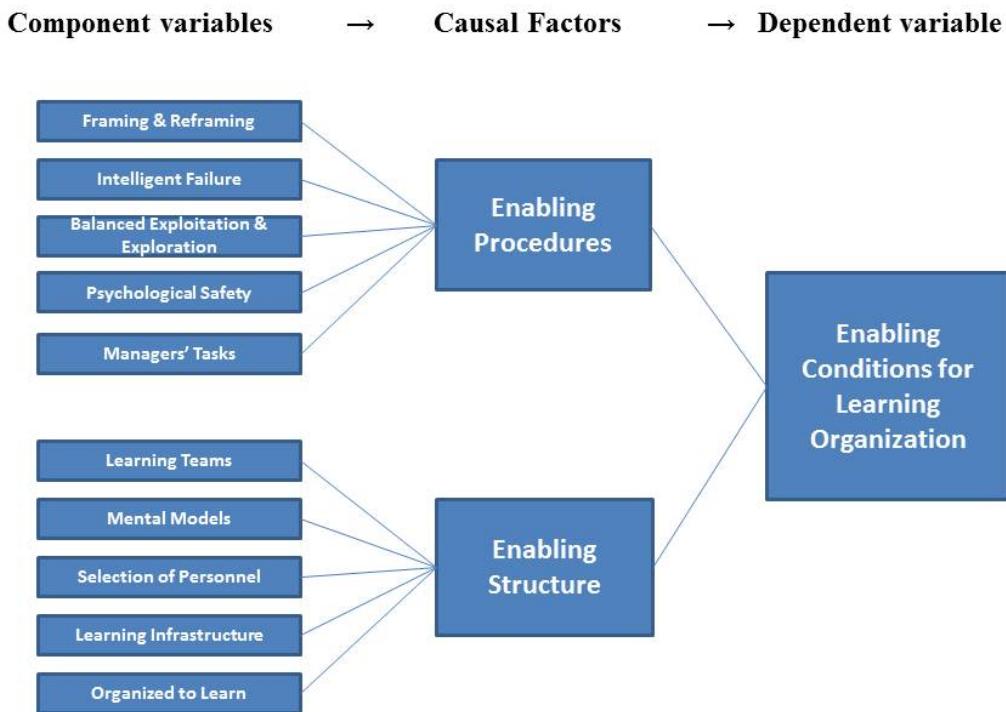


Figure 1. Dynamics of learning organizations

G. METHODOLOGY

This thesis will employ a cross-sectional comparison design through large-N survey research and critical-incident interviews. These two principal methods will strike the balance between quantitative and qualitative methods. The Department of Defense

Analysis (DA department) within the Naval Postgraduate School, Monterey, California, will be the primary location of data collection. NPS serves mainly American officers, but also international, NATO, and allied SOF students. The mission of the DA department “[is] to develop critical thinkers and capable operators, planners and commanders for the rigors of irregular warfare,” and the course of instruction is “specifically built around operational and strategic issues and the use of special operations forces.”¹² Student diversity and the overall focus of the DA department make it an ideal starting point for the study of SOF as a learning organization.¹³

This thesis surveys students with SOF backgrounds and uses two methods to identify the degree of enabling structural and procedural components, together with the degree of successful organizational learning. These methods consist of cross-sectional analysis using survey research and critical-incident technique.

A subset of the survey will be subjected to cross-sectional analysis to detect causal factors (both procedural and structural) and the presence and degree of dependent variables i.e., unit’s perceived degree of organizational learning. Additionally, the analysis will discover the degree to which a unit successfully negotiates obstacles to organizational learning. Critical-incident interviews will be used to gain additional insights that may not be readily available in the data gleaned from the survey. The qualitative nature of this method allows for broader and deeper insight into a problem and its context. The survey population will be DA students who are members of SOF from NATO or allied countries and are willing to participate. Surveys and interviews will provide additional insight into the best practices for successful unit learning.

¹² “DA History,” *Naval Postgraduate School*, November 16, 2011, accessed November 29, 2011, http://www.nps.edu/Academics/Schools/GSOIS/Departments/DA/About_Us/DA_History.html.

¹³ Student body of the Defense Analysis curriculum consists of joint SOF, conventional, and international students, where international students come from Combating Terrorism Fellowship Program and IMET: International Military Education and Training program. “DA History,” *Naval Postgraduate School*, November 16, 2011, accessed November 29, 2011, http://www.nps.edu/Academics/Schools/GSOIS/Departments/DA/About_Us/DA_History.html.

Process tracing describes the chain of events that contributes to effective unit learning, as identified through surveys and interviews.¹⁴ This method will analyze effective methods of SOF-unit learning and determine how these methods were institutionalized at the unit level. Interview results will be used extensively to reconstruct the course of organizational learning. Additionally, a further focus will be on how these units were able to cope with learning disabilities and capability-learning traps and overcome organizational predispositions against organizational learning. This method will determine how to best facilitate organizational learning in SOF units. Since there is heterogeneity among the units, this comparison may offer insight into the interplay of pertinent elements. The presence of these elements in the unit will vary, as will the degree of success in organizational learning.

¹⁴ Stephen Van Evera, *Guide to methods for students of political science* (Ithaca: Cornell University Press, 1997), 64.

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II. LEARNING ORGANIZATIONS

A. RELATION TO ORGANIZATIONS

Organizational learning is one of several processes within an organization. As it relates to the acquisition of knowledge, it requires better understanding of both internal and external environments. In relation to definition of organizational learning used for this study, once knowledge is acquired there is a need to act upon it.

B. THE IMPORTANCE OF ORGANIZATIONAL LEARNING

In the long term, learning is of vital importance to any organization. Learning creates conditions for adaptation, innovation, competitiveness, progress, superior performance, understanding, change, growth, expansion, effectiveness, efficiency, and understanding, focused both inwards and outwards. Without learning, an organization remains static and inert.

Organizational learning is tied to long-term survival and success. Arie de Geus, a former manager working at Royal Dutch Shell, has noted that “a full one third of *Fortune* 500 industrials listed in 1970 had vanished by 1983.”¹⁵ De Geus’s answer to the question “how does a company learn and adapt” offers insight into how hard it is and how few companies can actually do it. Survival for a company is an important matter. It is no less important for the military. The contrast between a corporation and a military organization becomes apparent in the price paid when learning is unsuccessful. When a military organization fails to learn, the price is extremely high. For a military organization, the need for organizational learning can hardly be overstated.

C. OVERVIEW OF ORGANIZATIONAL LEARNING

Unlike the dearth of literature on military organizational learning, the non-military literature is quite copious. One of the leaders in this field, Amy Edmondson,

¹⁵ Arie P. de Geus, "Planning as Learning," *Harvard Business Review* 66, no. 2 (1988): 70.

describes “[organizational] learning [as] a process of improving organizational action by developing better knowledge and understanding.”¹⁶ Her colleague at the Harvard Business School, David Garvin, defines a learning organization as “an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.”¹⁷ Achieving such organizational quality requires the adoption of certain practices. This thesis will use Garvin’s definition to assess how precepts from corporate learning organizations apply to SOF units.

No universally agreed-upon theory of organizational learning exists. Thus, a conceptual synthesis is in order. The wide disagreement on the crux of organizational learning is suggested by the multiple definitions listed by David Garvin. In his book, Garvin presents seven recognized definitions given by organizational theorists writing in scholarly journals; he also notes that the differences in regard to the requirements for organizational learning go as far as considering the need for behavioral change versus a new way of thinking, or information processing versus shared insights into organizational routines.¹⁸ The missing universally agreed-upon theory creates space for multiple definitions, and those in turn create diverse perspectives on organizational learning itself. Thus, this thesis will use many of the elements expected to be present within a learning organization.

There are broad categories of procedural and structural elements that enhance organizational learning. In other words, a learning organization can be expected to have incorporated certain structural and procedural elements that make learning inherent (and thus possible).

1. How Do Organizations Learn?

Organizations learn through teamwork. Depending on the context of learning, the teams can be organic, and their interdependence must be managed.

¹⁶ Amy C. Edmondson, “The Local and Variegated Nature of Learning in Organizations: A Group-Level Perspective,” *Organization Science* 13, no. 2 (2002): 128.

¹⁷ David A. Garvin, “Building a Learning Organization,” *Business Credit* 96, no. 1 (1994): 20.

¹⁸ David A. Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work* (Boston: Harvard Business School Press, 2000), 9–10.

Although many practices and procedures start at the individual level, organizational learning happens through team learning. As Senge writes, “Individuals learn all the time and yet there is no organizational learning. But if teams learn, they become a microcosm for learning throughout the organization.”¹⁹ According to Edmondson, learning in organizations happens on three levels: individual, team, and organizational. Individuals learn naturally. Teams do not learn naturally, but teams are the unit of learning in organizations and therefore need to be managed. Edmondson demonstrates that organizations learn through teams, whose interdependence must be managed.²⁰

Organizations tend to learn better in small teams.²¹ Since they do not always organize that way, learning might be a challenge. Team learning must be fostered by an organization’s leadership, since there is a need for managing team interdependence. The need for learning in teams is well manifested by Steve Kerr, as noted in Garvin’s book:

[the] golden rule of organizational development is, “Never send a changed person back to an unchanged environment.”... Even if they got excited, they come back to a full desk and a boss who doesn’t understand their passion. Most of the time, no learning occurs, since we define learning as a change in behavior.²²

If a person goes away and, after returning, tries to bring new insight into the organization, he faces the challenge of lack of comprehension. Kerr continues with the experience of an opposite outcome if the learners showed up in teams, ideally representing a diagonal slice of the organization.²³ The difference in team’s composition is driven by the context of learning and organization itself. However, the need for learning in teams composed of people from across the organization is widely

¹⁹ Peter M. Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization* (New York: Doubleday/Currency, 2006).

²⁰ Amy C. Edmondson, “Organizing to Learn: Module Notes for Instructors” (Boston: Harvard Business School Press, 2003), 20.

²¹ While Edmondson argues, that organizations learn through teams, Hackman states the relation between the size of the team and its productivity. Peter Senge states team learning as one of the disciplines of organizational learning.

²² Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 129.

²³ Ibid.

acknowledged. Such learning allows for diversity and supports sharing, openness, and dialogue, but is not always easy to accommodate.

2. Is It that Easy?

Creating a learning organization is not an easy task; there are many obstacles. Structurally, organizations created to execute orders are not well predisposed for learning.²⁴ Strongly hierarchical and evaluation-based systems (such as the military) are not a good start for a learning organization either. These systems naturally prevent intelligent failure and psychological safety; a person is not likely to take calculated risks and experiment, or openly display ignorance if the system does not support such freedom or if he does not feel safe to take interpersonal risks. Promotion in the U.S. Army is carried out by established boards that rely on written reports. This promotion system has two major pitfalls. First, the board can only rely upon written reports that often undervalue innovative and experimental behavior. Second, the same board that evaluates conventional Army officers also selects Special Forces personnel for promotion. Consequently, the context of each personnel's performance is not transmitted into promotion considerations. This board, examining both conventional and unconventional soldiers, promotes each according to the same qualities, which in turn promotes conventional behavior among SF personnel.

Creating a learning organization is difficult to achieve in and of itself, and unfortunately there are other real obstacles beyond challenges to the establishment of new practices—there are also learning traps and disabilities, which are further covered in Chapter IV. A lack of balance between exploratory and exploitative learning increases

²⁴ As Edmondson researched, many management systems are designed to facilitate reliable execution of established procedures. Amy C. Edmondson, “Organizing to Learn: Module Notes for Instructors,” 3.

the probability of an organization's falling into a capability learning trap.²⁵ Peter Senge mentions seven learning disabilities that are commonly present among organizations;²⁶ these obstacles are frequently present in SOF units. With the speed of career progression, military leadership rarely sees the consequences of its decisions. This is especially true under the common practice of assigning an individual to a different part of the establishment before the results of his previous decisions are clear to him. Put differently, due to career progression, fewer feedback loops exist between leadership decisions and the experience of consequences. This pattern is often exacerbated by the frequency and pace of deployments as well. Because units are expected to prepare for the next event or deployment, their ability to learn organizationally is limited by a fixation on events.

3. How to Solve the Challenge?

For a military unit to become a learning organization, some traditional attributes need to be revised. Some degree of insight is offered by Adam Harmon, an American who served in the Israeli defense forces (IDF). Harmon describes how the internal culture of the IDF fosters innovation and how conditions for organizational learning are

²⁵ Harrison and Boyle mention three learning traps. The distinctive competencies trap, where successful learning leads to an increasing focus on the particular competence learnt taking attention away from "other bases of experience and knowledge; The power trap, which occurs when firm becomes so dominant in its business sector that it can influence its environment, and typically loses its ability to develop capabilities to respond to changes in the environment; and the success trap which results from firms using exploitative learning to develop new capabilities, which may be inappropriate for the firm in a changed environment. Jeannette Harrison, and Emily Boyle, "Falling into Capability Learning Traps: The Role of the Firm's Predominant Managerial Mental Models," in *Management Decision* 44, no. 1 (2006): 32.

²⁶ Senge's learning disabilities: "I'm [SIC?] my position (people mistaking their job with their identities, consequently they see their responsibilities limited to the boundaries of their position) little responsibility for overall results, lack of interoperability and interdependence, The enemy is out there (side product of I'm my position, due to the lack of appreciation of how our own actions extend beyond the boundary of that position), The illusion of taking charge (being proactive is often mistaken for being reactive in disguise, being proactive to consequences and to the the causes), The fixation on events (people are naturally focusing on short term events, and tend to miss the long term patterns of changes), The Parable of the boiling frog (similarly to frog in a water, if the change is fast it is easy to notice that and act accordingly, if the change happens gradually and slowly over time, people tend to miss the change until it is too late), The delusion to learn from experience (although the best learning is from direct experience, we never directly experience the consequences of many of our most important decisions (since the most critical decisions made in organizations have system wide consequences that stretch over years or decades), The myth of the management team (as Argyris noted, most management teams perform quite well with routine issues, but they break down under pressure)." Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 18–25.

achieved.²⁷ He argues that very low formality and parallel bottom-to-top decision making lead to a high level of trust between the senior leadership and lower-ranking members of the organization. In addition, Harmon argues that the culture of open communication and public accountability fosters the IDF's ability to learn.²⁸

D. ACHIEVING ORGANIZATIONAL LEARNING

As mentioned earlier, a learning organization should have certain practices and structures in place to enable specific components of organizational learning. As each carries out only certain aspect of organizational learning, these components are complementary to each other. Also, as there is no single “silver bullet” among them, thus none of them should be perceived as more important than other, and their merit comes when they act in concert. For the purposes of further assessment and comparison, this thesis uses five procedural and five structural elements.

1. Procedural Elements

Five procedural elements enhance organizational learning:

a. Framing and Reframing

Social theory recognizes a frame as a filter humans use to see and interpret events around them; such filters in turn influence what we see and how we interpret it. Amy Edmondson mentions, “Framing is neither bad nor good; it is simply inevitable,” which means it is always present.²⁹ But she also notes that these “[sets] of assumptions

²⁷ For more information, please see Adam Harmon, “Living in Democracy. Working in Autocracy,” *Lonely Soldier: Memoir of an American in the Israeli Army*, April 25, 2009, accessed September 21, 2011, <http://www.lonelysoldiermemoir.blogspot.com/>.

²⁸ Adam Harmon, “Living in Democracy. Working in Autocracy,” *Lonely Soldier: Memoir of an American in the Israeli Army*, April 25, 2009, accessed September 21, 2011,

²⁹ Amy C. Edmondson, “Framing for Learning: Lessons in Successful Technology Implementation,” *California Management Review* 45, no. 2 (2003): 1.

and beliefs about a particular object or situation” have an impact on learning.³⁰ As SOF units are expected to perform, they are likely to frame new situations as an opportunity to perform and “get it right.”³¹ Such focus on performance can actually hinder organizational learning. By contrast, when new situations are communicated as a challenge or opportunity to learn, the likely outcome of the situation differs considerably, and the focus shifts from “do it right” or “perform” to “let’s learn” or “let’s find out how.” Framing influences perceptions and in turn has an impact on the kinds of information gathered, evaluated, and shared. Gathering information is the first step in learning, while sharing information is part of step two.³² The nature and quality of the information gathered influences the possible outcome.

In her study on implementing a new method of cardiac surgery, Edmondson elaborately compares the implementation of this new method among sixteen hospitals. She concludes that “differences in how the project was framed by each project leader gave rise to different attitudes about the technology and to striking differences in teamwork.”³³ The differences in framing of the project’s purpose, the leader’s role, and the team’s role not only influenced success, but also caused differences in team dynamics, communication before, during, and after the procedure, and further innovation in this technique by one of the team.³⁴

b. Intelligent Failure

Failure is an integral part of learning. While focusing on small successes builds reliability and brings short-term success, skillful planning for possible failures builds up resilience and supports viable long-term performance. According to Sim Sitkin, “failure enhances adaptation to changing environmental conditions and systemic

³⁰ Edmondson, “Framing for Learning: Lessons in Successful Technology Implementation,” 1 and 17, notes.

³¹ Ibid., 15.

³² David Garvin mentions that virtually all studies are using three to four stages of learning; as Garvin himself uses three – these acquiring, interpreting, and applying. Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 21–28.

³³ Edmondson, “Framing for Learning: Lessons in Successful Technology Implementation,” 44.

³⁴ Ibid., 44–48.

resilience to unknown future changes, both of which enhance long-term performance,” and Sitkin further states that “failure is an essential prerequisite for learning.”³⁵ Similarly to framing mentioned before, SOF units are created and led to perform. As with the majority of other organizations, success is the key, and peacetime training and preparation is often as focused on success as during war. As SOF units are expected to be innovative and capable of fielding out-of-the-box solutions to become successful in a long term, they need to be able to make use of intelligent failure.

However, as Sitkin puts it, success only fosters reliability and thus improves short-term performance, while failure improves resilience and thus improves long-term performance. Success is naturally more valued than failure, and it is easy for it to be overvalued, since it improves efficiency, supports shared goals and values, provides motivation and confidence to persist, and helps create conditions for operational stability and coordination. Thus, in the short term, success improves reliability and performance. However, among the liabilities of success belong restricted searching, reduced attention, complacency, risk-aversion, and homogeneity; and unlike the benefits of small failures, these liabilities limit resiliency. Small failures support resiliency by supporting deeper processing of information concerning potential problems. These failures leads to ease of recognition and interpretation of problems, increased searching for solutions, and heightened motivation to adapt, risk, practice, and welcome variety. It is safe to say an organization that focuses mostly on success will initially become more efficient and reliable in execution, but, in the long term, more limited in its outlook and agility, more risk-averse and homogenous, and more limited in innovating and learning. For a failure to be supportive to learning, it needs to result from planned actions, have uncertain

³⁵ Sim B. Sitkin, “Learning through Failure: The Strategy of Small Losses,” in *Research in Organizational Behavior*, edited by Barry M. Staw and L.L. Cummings, 231–266. London: JAI press, 1992, 232 & 260.

outcomes of modest scale, be executed and responded to quickly, and be located in domains that are familiar enough to allow for effective learning.³⁶

One example of intelligent failure that is well established within the internal culture and practice of an organization is the Palo Alto-based design company IDEO. Within this company, failing is not only a necessary step enroute to innovation and learning, it is regarded as a learning enhancer. Within their innovation methodology are two particular steps well-grounded in failing.³⁷ During their brainstorm sessions,

civility and praise are encouraged; interruptions and criticism are not. Designers are urged to treat the process as a game; the goal is to generate ‘wild ideas’ and ‘defer judgment’ as long as possible. The result, according to careful anthropological study is, is that at IDEO “there is a little cost for suggesting a bad idea as long as a person occasionally comes up with a good one.”³⁸

Their next step, prototyping, makes great use of failure.

The concept of “failing often in order to succeed sooner” permeates the methodology. Trying a ‘half-baked’ idea with users refines the idea to something truly usable. The point is to make many things on a small scale and to focus energy on the few ideas gaining momentum that have potential to make impact.³⁹

Within IDEO, “[brainstorming] is widespread, and physical prototypes are constantly generated, distributed, reviewed, and revised. David Kelley, the CEO, recently extended this approach to structural change. In 1995 and 1996, he introduced a number of organizational innovations, including working teams and a smaller ‘company within

³⁶ Sim B. Sitkin, “Learning through Failure: The Strategy of Small Losses,” 243.

³⁷ The primary steps of the IDEO’s Innovation Methodology are: Research, Storytell, Brainstorm, Prototype, and Implement. Christi D. Zuber, Victor Alterescu, and Marylin P. Chow, “Fail Often To Succeed Sooner: Adventures in Innovation, *The Permanente Journal* 9, no.4 (Fall 2005): 46.

³⁸ Garvin, Learning in Action: A Guide to Putting the Learning Organization to Work, 39. And Robert I. Sutton and Andrew Hargadon, “Brainstorming Groups in Context: Effectiveness in a Product Design Firm,” *Administrative Science Quarterly* 41 (1996): 706.

³⁹ Christi D. Zuber, Victor Alterescu, and Marylin P. Chow, “Fail Often To Succeed Sooner: Adventures in Innovation, *The Permanente Journal* 9, no.4 (Fall 2005): 45.

company.’ Kelley urged employees to view these arrangements the same way that they treated physical prototypes: as ‘temporary and reversible experiments’ that could be refined and altered as needed.”⁴⁰

c. Balanced Exploration and Exploitation

Both exploration and exploitation have their strong and weak sides. Long-term adaptation requires a balance between both. A Stanford scholar focusing on organizational psychology, James March, notes that “adaptation requires a balance between exploration and exploitation but is continually threatened by the tendency of each to extinguish the other.”⁴¹ As these two approaches essentially compete, there are inherent risks hidden beneath. Successful adaptation needs a balance of both. Such balance needs to be applied to learning as well. As Harrison and Boyle conclude, a managerial mental model should be changed frequently, since “firms should maintain an appropriate balance between the exploitative and exploratory learning to prevent them from falling into capability learning traps.”⁴² These traps are discussed in Chapter IV. While exploitative learning focuses on improving previous knowledge, explorative learning is oriented towards gaining new knowledge. This notion of balance is similar to the previously noted intelligent failure. While learning through success is based on using and improving successfully used knowledge, exploratory learning is based on looking for new knowledge; this is achieved through exploratory learning, which, if well conducted, accepts intelligent failure as a possible outcome of experimentation.

When the training and preparation of a SOF unit focuses on the improvement of skills, it is by nature exploitative learning. Seeking new approaches, new skills, and areas of expertise is exploration. Without a balance between the two, there is a limit to how far a unit can get. Without a balance in learning, the learning of the unit becomes limited.

⁴⁰ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 149.

⁴¹ James G. March, “Continuity and Change in Theories of Organizational Action,” in *Administrative Science Quarterly*, no. 2 (1996): 286.

⁴² Jeannette Harrison, and Emily Boyle, “Falling into Capability Learning Traps: The Role of the Firm’s Predominant Managerial Mental Models,” *Management Decision* 44, no. 1 (2006): 40.

d. Established Environment of Psychological Safety

While Edmondson uses the term psychological safety “to capture the degree to which people perceive their work environment as conducive to taking [these] interpersonal risks,” she also argues that “creating conditions of psychological safety is essential to laying a foundation for effective learning in organizations.”⁴³ In a bureaucratic organization, people are subject to formal evaluation. SOF units are no exception, as they are mostly bureaucratic in nature. As noted by Edmondson, formal evaluation, together with an individual’s concern about how he is seen by peers and subordinates, limits the environment of psychological safety.⁴⁴ Consequently, unless unit leadership provides and promotes an environment where people feel safe to take interpersonal risks, learning within the organization may be harder to achieve. Providing psychological safety starts with the leadership itself. Unless a leader acknowledges his own imperfections, promotes curiosity, encourages a climate where it is safe to speak up and ask questions, or provides aids to learning such as an anonymous reporting system or culture where failure and mistakes are seen as natural byproducts en route to learning, unit members are not likely to take interpersonal risks.

The Harvard study *Children’s Hospitals and Clinics* covers a major organizational change implemented by chief operating officer Julie Morath in a hospital in Minneapolis, Minnesota. The goal was to elevate patient safety. Based on the finding that 72 percent of medical errors were recurrent, one of the initiatives was to “create a culture that welcomed open and frank communication about safety issues.”⁴⁵ To allow for learning from incidents that went largely untapped due to blame shifting or concealing information, Morath instigated multiple initiatives. She created forums where staff members could learn about the incidents and discuss safety issues while learning about current research in the field. She also “instituted a ‘blameless reporting’ system for

⁴³ Amy C. Edmondson, “Managing the Risk of Learning: Psychological Safety in Work Teams,” in *International Handbook of Organizational Teamwork*, edited by M. West (London: Blackwell, 2003), 5.

⁴⁴ Edmondson, “Managing the Risk of Learning: Psychological Safety in Work Teams,” 4.

⁴⁵ Amy C. Edmondson, Michael A. Roberto, and Anita Tucker, “Children’s Hospital and Clinics (A),” Case 9-302-050 (Boston: Harvard Business School, 2007), 6.

recording medical errors ... and ... created a common language that everyone could utilize to discuss accidents.”⁴⁶ Morath also “established a new disclosure policy regarding how to communicate with parents about medical accidents.”⁴⁷ These new measures created a supportive environment where employees shared information without fear of blame. Not only incidents, but also “near misses” got reported, and the new terms used in discussions about the medical accidents facilitated more open and fruitful discussion, and, in turn, learning. The new disclosure policy, which was feared due to the risk of increased lawsuits, turned out not only more beneficial for both parents and hospital, but also uncovered a very rich source of insights and experiences.

For leaders, the hurdle in acknowledging personal limitations is related to a perceived threat to their status. Likewise, establishing the environment of psychological safety could be especially challenging within a bureaucratic organization full of Type A personalities, where the competition over career and promotion strongly relies on written evaluation.

e. Managers's Tasks

Managers and leaders have a key role in organizational learning.⁴⁸ Their tasks are mainly related to creating an environment of psychological safety, supporting learning in teams, managing team interdependence, framing and reframing situations, raising awareness of, and subsequently assuming, suitable mental models, and promoting and spreading a vision. Another task of the managers and leaders is also to be a role model and lead by example, for there are only limited ways to foster shared vision, which is one of the disciplines of organizational learning. Shared vision comes from personal vision; as such it is incrementally built on one’s own choice. As Peter Senge put it,

⁴⁶ Edmondson, Roberto, and Tucker, “Children’s Hospital and Clinics (A),” 7.

⁴⁷ Ibid.

⁴⁸ Managers have an essential role: assisting with problem-solving efforts, providing support for workers who attempt to improve their work systems, and valuing them as motivated employees. By reframing workers’ perceptions of failures from sources of frustration to sources of learning, managers can engage employees in system improvement efforts that would otherwise not occur. Anita L. Tucker, and Amy C. Edmondson, “Why Hospitals Don’t Learn from Failures: Organizational and Psychological Dynamics that Inhibit System Change,” *California Management Review* 45, no. 2 (2003): 69.

“writing a vision statement can be a first step in building a shared vision but, alone, it rarely makes a vision come alive within an organization.”⁴⁹ He continues, “[Leader’s] intent on building shared visions must be willing to continually share their personal visions. They must also be prepared to ask, ‘Will you follow me?’ This can be difficult. For a person who has been setting goals all through his career and simply announcing those, asking for support can feel very vulnerable.”⁵⁰ For a vision to become shared, people need to be enrolled or committed to it, and this is based on choice. Visions that are simply presented to people get compliance at best. Because a shared vision “provides the focus and energy for learning,” it “is vital for the learning organization.”⁵¹ The management tasks related to organizational learning are numerous, and some of them are more challenging than others, including creating and selling a shared vision.

Unless a SOF unit’s management fulfills these tasks appropriately, the unit inevitably becomes limited in its learning as an organization.

2. Structural Elements

Just as there are procedural elements that facilitate organizational learning, for the successful conduct of organizational learning, certain elements must be present within the structure. Five structural elements to facilitate organizational learning are presented below.

a. *Learning Teams: their Size and Mix*

Not all teams are equally well suited to team learning. Size is one of the variables influencing their throughput while conducting an intellective task. In his book on team performance, Hackman presents two ideas about a size of the team and how it influences performance: first, that smaller teams perform better, and second, that people

⁴⁹ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 199.

⁵⁰ Ibid., 200.

⁵¹ Ibid., 192.

tend to overstaff their teams.⁵² Thus one of the structural elements that facilitate organizational learning is the size of the working team. According to Hackman, with a growing number of members, a team's potential productivity grows at a decelerating rate, while process losses grow with an accelerating rate.⁵³ As a general rule of thumb, Hackman noted that teams are likely to perform better if the number of the team members is actually a little bit lower than the task requires. Although, the size of the team obviously depends of the nature of the task, Hackman's golden rule is no more than six members.⁵⁴ Another variable is the composition of the team. The notion of composition here covers both the degree of homogeneity and levels or divisions. For homogeneity, the right mix is between homogeneity and heterogeneity, where "members have a variety of talents and perspectives, yet are similar enough that they are able to communicate and coordinate with one another competently."⁵⁵ The idea of *diagonal-slice* teams describes learning team, where the tacit, experiential knowledge is shared and ideally covers a wide range of skills and perspectives.⁵⁶

An example of the importance of team size is the General Electric Corporation's change-acceleration process (CAP), a program that is generally regarded as effective. When Jack Welch became CEO in 1981, he believed that the General Electric "was slow, stodgy, and plagued by bad habits: 'parochialism, turf battles, status, 'functionalitis,' and most important, the biggest sin of bureaucracy, the focus on itself and its inner workings.'"⁵⁷ "Managers and employees were separated by a vast gulf;

⁵² Richard J. Hackman, *Leading Teams: Setting The Stage For Great Performances* (Boston: Harvard Business School Press, 2002), 116–122.

⁵³ Process losses include motivational decrement, coordination problems, inefficiencies developed when people work together in teams. Process losses do increase with size, but they grow at accelerating rate. Due to the process losses, the teams actually never perform at their level of potential productivity. Hackman, *Leading Teams: Setting The Stage For Great Performances*, 116–117.

⁵⁴ Examples Hackman uses refer to teams of size between two and seven members. When larger, the teams become mostly inefficient. Hackman, *Leading Teams: Setting The Stage For Great Performances*, 118–122.

⁵⁵ Hackman, *Leading Teams: Setting The Stage For Great Performances*, 123.

⁵⁶ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 123–129.

⁵⁷ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 125. Joseph L. Bower and Jay Dial, "Jack Welch: General Electric's Revolutionary," Case 9-394-065 (Boston: Harvard Business School, 1993), 8.

teamwork was poor to nonexistent; and applied problem-solving skills were lacking.”⁵⁸ Changes initiated by Welch resulted in three categories of courses: programs for managers transitioning to distinct and critical ranks, focused workshops aimed at companywide initiatives, and broad-based improvement programs focused on producing fundamental changes in work practices and behaviors. For some of the course, teams bring their own real-life problems to solve, and these must fulfill certain criteria in order to qualify.⁵⁹ “Typically, teams consist of eight to twelve people, who represent a diagonal slice of the organization … team members must have credibility within their organizations and must represent a variety of critical stakeholders.”⁶⁰ The composition of each team is project dependent and each team has a coach to educate, facilitate, and arbitrate. Initially, these coaches were external to the company; later these roles were filled from the various divisions. Participants arrive with knowledge about the problems and expectations about the course. After three days, they leave with improved knowledge about themselves and a plan on how to implement changes. For GE, within four years after implementing this approach to learning, the benefits were extremely positive.

SOF units have a better starting point for the employment of learning teams, because of the smaller size of their fundamental unit. Traditionally, SOF teams are smaller than their conventional counterparts; and the level of formality tends to be lower within SOF in general. However, since the size of the teams within SOF range from four to sixteen members, some teams could be restricted by their size. When it comes to learning, teams deserve more attention, not only for the size of the teams, but because their composition has a strong impact on outcomes. When creating learning teams, the effort needs to be focused on size and composition—neither too small nor too big—and ideally represent the right mix of personnel from an appropriate slice of the organization.

⁵⁸ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 125.

⁵⁹ These problems “must involve cultural and organizational dilemmas, must require work beyond the few days devoted to CAP classes, and must have a significant payoff for both the business and the corporation as a whole. Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 128.

⁶⁰ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 129.

b. Managerial Mental Models

The author of the book *The Fifth Discipline*, Peter Senge, suggests that management's mental models are always present, and an organization needs to be aware of them.⁶¹ Their importance is in the fact that they shape our perceptions of what we see, which in turn influences how we react.⁶² As managerial mental models shape perceptions, they in turn shape decisions as well. While mental models facilitate perceiving, translating, and understanding presence [the present?], they also allow for understanding the future. This is the nature of their importance for organizational learning.

The problem with mental models is that they are assumptions, and unless acknowledged and treated as such, the perception of current reality can become skewed. The correct translation of the presence allows for preparation for the future. As Senge puts it, “[the] problems with mental models lie not in whether they are right or wrong—by definition, all models are simplifications. The problems with mental models arise when they become implicit—when they exist below the level of our awareness.”⁶³ The worst case is being unaware of one's own models. When one is perceiving reality and making decisions based upon assumptions one is unaware of, inappropriate actions can be taken for reasons unaware. The next step, corrective action, is likely to address the wrong reasons. With implicit assumptions one is unaware of, the likelihood of misunderstanding changes to the environment is higher. Elaborating on the last notion, Senge explains that the ultimate aim is the ability to constantly challenge one's assumptions, i.e., mental models, openly and truthfully. Such an approach prevents mental models from going “under the radar,” and becoming outdated. Ultimately they are all assumptions, but if properly executed, they allow to us to “unearth shortcomings in

⁶¹ Peter Senge is a senior lecturer from Massachusetts Institute of Technology, founding chair of Society for Organizational Learning, and he is considered the author of the notion of learning organization. Harvard Business Review identified Senge's book *The Fifth Discipline* as one of the seminal management books of the past 75 years. “Peter Senge and the Learning Organization,” *the Encyclopedia of Informal Education*, accessed May 17, 2012, <http://www.infed.org/thinkers/senge.htm>.

⁶² Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 8–9.

⁶³ Ibid., 166.

our present ways of seeing the world.”⁶⁴ They help to elevate awareness of one’s own models and improve one’s ability to negotiate with others. When mental models are approached appropriately, the learning that takes place is generative and not reactive; the organization can innovate and adapt for the future.⁶⁵ With mental models, the aim is not convergence and alignment, *per se*, but rather opened and truthful discussion; what matters is dialogue. Since the organization is a system within a larger system, the ultimate aim is to shift from those mental models that emphasize events to those that recognize and work with patterns.⁶⁶ Without management’s willingness to constantly challenge its mental models, the organization’s effort to learn and innovate ends up inherently limited.

A successful demonstration of work with mental models and how they promote organizational learning is the example of Royal Dutch/Shell. In 1972, when Shell’s scenario planning group foresaw distinctive changes in their task environment, planners failed to convince the managers of the company. The reason for this failure was the strongly ingrained experience of Shell’s managers, which was contradictory to predicted changes; although based on experience, the managers’ view of the world was fundamentally obsolete. Senge notes that in order to allow their managers to understand the changes that were about to come, Shell’s “Group Planners developed a new set of scenarios in January and February, 1973, which forced the managers to identify all of the assumptions that had to be true in order for the managers’ ‘trouble-free’ future to occur. This revealed a set of assumptions only slightly more likely to come true than a fairy tale.”⁶⁷ The planners’ next step was to present a new set of scenarios based on the managers’ assumptions, which enabled them to initiate, based on their own mental models and gradually perceive how the world was changing. “Although many Shell managers remained skeptical, they took the new scenarios seriously because they began to see that

⁶⁴ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 24.

⁶⁵ Generative learning is a “style of learning that incorporates existing knowledge with new ideas based on experimentation and open-mindedness. This style of learning encourages individual and team creativity, resulting in a new way of viewing old methods.” “Generative learning,” *BusinessDictionary.com*, accessed June 13, 2012.

<http://www.businessdictionary.com/definition/generative-learning.html>.

⁶⁶ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 189–190.

⁶⁷ *Ibid.*, 169.

their present understandings were untenable. The exercise had begun to unfreeze managers' mental models and incubate a new world view.⁶⁸ As a result, the company reacted to changes that came a year later differently from other major oil companies. "Shell's managers responded differently because they interpreted their reality differently."⁶⁹ From the weakest corporation among the seven largest oil companies, within nine years, Shell became one of the two strongest; "certainly it and Exxon were in class by themselves."⁷⁰ By the early 1980s, management's mental models became an important part of the planning process at Shell.

Similarly, in the events preceding the 9/11 attacks, not all factors were unknown. There was certain degree of awareness of flight-school attendances, phone calls, and meetings, and some of the people were watched. However, most people "had a mental model of how an airplane hijacking was supposed to unfold. [They] also had a mental model of what a weapon of mass destruction was."⁷¹ These models were based on previous events and not on what was possible in reality.

c. Selection of Personnel

Amy Edmondson argues that certain types of people are hired when the purpose of a team is to execute, and other types for the purpose of learning. She maintains that conformers and rule followers should be hired for execution, while problem-solvers and experimenters should be hired for learning.⁷² Conventional military culture puts a high value on rules and discipline. People are trained and brought up to follow and lead. Such a culture also tends to value and promote those who conform to it. This in turn means that experimenters and problem solvers may not be valued as much. Their number could be limited (in comparison with the number of followers and conformers). Both groups together constitute the pool from which SOF members are

⁶⁸ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 169.

⁶⁹ Ibid., 169–170.

⁷⁰ Milton Moskowitz, *The Global Marketplace* (New York: MacMillan, 1988).

⁷¹ Pete Blaber, *The Mission, The Men, and Me* (New York: Berkley Trade, 2010), eBook, 134–136.

⁷² Amy C. Edmondson, "Organizing to Learn: Module Notes for Instructors," 4.

selected, and this notion of variety within personnel is applied equally to further promotion. The selection processes of SOF units, as well as promotion criteria, do differ. And although these criteria focus on flexibility, and ability to think and make decisions, they also focus on individual performance. Organizations that focus on performance tend to focus on improvements in execution. The distinction between the routine and innovation is a distinction between the first and second order of learning; while the former tends to focus on efficiency, the latter focuses on improving learning conditions; similarly “managers tend to employ a consistent approach or style, often organizing to execute (particularly when this is consistent with the organization’s culture) and miss opportunities to employ a learning approach, despite facing a novel challenge.”⁷³ An example of a rather holistic approach to selection is found in the state of Israel. At the age of 17, all students are screened and both males and females are invited to participate in aptitude and psychological exams, interviews, and medical evaluation. For some of the units, only the top two percent can take part in the selection process.⁷⁴ Further selection focuses on, among other things, improvisation, teamwork, social integration, and intelligence; uncertainty constitutes a significant part of most of the selection drills.⁷⁵ The difference between Israel and most other countries is its access to all possible recruits rather than to a pool of volunteers.⁷⁶

One of the core questions Dan Senor and Saul Singer ask in their book *Start-Up Nation* is, “what makes Israeli entrepreneurs so innovative and go-ahead?” One of the pieces to this puzzle was identified as previous service in military units, precisely

⁷³ Amy C. Edmondson, “Organizing to Learn: Module Notes for Instructors” (Boston: Harvard Business School Press, 2003), 3–4. First order learning and second order learning was noted by Chris Argyris and Donald A. Schön, and the difference between the two orders of learning is based on the change required. The first order learning aims at improvement based on set norm, while the second order learning is required when the alteration of the structure of the system is needed. Thus the first order learning produces small improvements, and the second order learning questions the system and offers more radical changes. Chris Argyris and Donald A. Schön, *Organizational Learning: A Theory of Action Perspective* (Reading: Addison-Wesley Pub. Co., 1978), 87.

⁷⁴ Dan Senor and Saul Singer, *Start-up Nation: The Story of Israel’s Economic Miracle* (New York: Twelve, 2011), eBook, 69–72.

⁷⁵ Boris Groysberg, Tal Riesenfeld and Eliot Sherman, “Israeli Special Forces: Selection Strategy,” Case 9-409-041 (Boston: Harvard Business School, 2008), 3–8.

⁷⁶ Senor and Singer, *Start-up Nation: The Story of Israel’s Economic Miracle*, 77.

the kind of selection needed for service in each specific unit. Perhaps the pinnacle of both selection and training among the Israeli elite units is the Talpiot. The program started after the debacle of the 1973 Yom Kippur War, which the Israeli recorded as “costly reminder that Israel must compensate for its small size and population by maintaining a qualitative and technological edge.”⁷⁷ The way to achieve such an edge was communicated to the military in a simple idea: “take a handful of Israel’s most talented young people and give them the most intensive technology training that the universities and the military had to offer.”⁷⁸

After thirty years, the Israeli Talpiot selection program still continues in its original format. “Each year, the top [two] percent of Israeli high school students are asked to try out—two thousand students … of these only one in ten pass a battery of tests … these two hundred students are then run through two days of intensive personality and aptitude testing.”⁷⁹ After enrolling in the program, the Talpiot cadets go through an accelerated university degree, where they study more in less time. During their training, the cadets “are instructed to operate on the edges of anarchy, or at least insubordination,” they are told not to ask for advice, but instructed “[seek] the answers on your own. Go to Google, Facebook or whatever you want and see what you can to find new ways to get out of that trouble, to win this war. [Your superiors] are very good, smart people, but they may be framed in the old world and old system.”⁸⁰ The reason for such an attitude is to prevent the cadets from becoming influenced by old assumptions and frameworks and thus becoming less capable of coming up with new, innovative solutions. “They also go through basic training with the paratroopers… the ultimate goal… is to transform them into mission-oriented leaders and problem solvers… by handing them mission after mission, with minimal guidance… some are mundane… [others] are as complicated as penetrating a telecommunications network of a live terrorist cell. But more typical is

⁷⁷ Senor and Singer, *Start-up Nation: The Story of Israel’s Economic Miracle*, 71–72.

⁷⁸ Ibid.

⁷⁹ Ibid., 72.

⁸⁰ David, A. Fulghum, “Brain Gain,” *Aviation Week & Space Technology* 172, no. 29 (2010): 65.

forcing the soldiers to find cross-disciplinary solutions to specific military problems.”⁸¹ The same qualities required of IDF’s innovators proved successful for creating new companies.

When an organization needs to learn, the selection processes should take into account the need for a specific type of person. Otherwise, it might be the case that learning is limited before it actually starts. Also, lowering the standards of selection in pursuit of filling empty positions within an organization does not help the organization in the long term.

d. Learning Infrastructure

Gaining new insights, seeking possible solutions, and supporting the implementation of changes are some of the tasks a learning infrastructure can manage in support of learning and innovation within an organization. Amy Edmondson defines learning infrastructure one in which “small groups throughout the organizations focus on relevant issues and inform each other as needed,” where the undelaying conditions is psychological safety.⁸² A study about children’s hospitals and clinics from the Harvard Business School offers a more detailed description and multiple examples of a successfully functioning learning infrastructure.⁸³ In order to take place, both learning and organizational changes need a vehicle that will facilitate and support such activity. A learning infrastructure, such as a cross-functional team, can do that. Composed of personnel concerned with outcome, such infrastructure can create and field a reporting and analyzing system, monitor the initiative’s process, adjust the depth of inquiry, evaluate processes with a focus on learning, assure that the complexity of a system is taken into account, suggest changes, and oversee the implementation of changes to help remove barriers created by administrative and support staff. Such a learning infrastructure is both a method of communication and vehicle for change.⁸⁴ Within a mature

⁸¹ Senor and Singer, *Start-up Nation: The Story of Israel’s Economic Miracle*, 72.

⁸² Edmondson, “Organizing to Learn: Module Notes for Instructors” 14.

⁸³ Amy C. Edmondson, Michael A. Roberto, and Anita Tucker, “Children’s Hospital and Clinics (A),” (Boston: Harvard Business School, 2007).

⁸⁴ Edmondson, Roberto, and Tucker, “Children’s Hospital and Clinics (A),” 1–12.

organization with long-term, established processes, this infrastructure can build on gradual successes and support smoother transitions towards a learning organization.

Beginning with a deep interest in improvements to patient safety, chief operations officer Julie Morath took several steps to learn about the issue, raise awareness of it, and finally introduce organizational changes in support of her goal. During the process, she created multiple structures: these were a patient-safety steering committee (PSSC), focused event studies (FES), and safety action teams (SAT). The PSSC started with ten members and eventually grew up to nineteen. It was headed by Morath and oversaw the safety patient initiative.⁸⁵ The FES overlooked the hospital's policy on conducting inquiries. One of the products of FES was the resolution to study not only serious incidents, but also the less serious, or "near misses."⁸⁶ Such a structure was crucial for understanding the causes hidden by systemic complexity. It also allowed less formal discussions and searched for ways to improve its work, e.g., experimenting with two facilitators, one for leading the discussion and the other to observe the nonverbal behavior of participants. The SATs were an example of a grassroots initiative, started by a nurse. Both the origin (structural location) of members and their combined experience were essential to the effort of adjusting practices so as to "to root out unnecessary complexity and to remove barriers that prevented them from providing effective care to patients."⁸⁷

⁸⁵ The PSSC constructed a diagonal-slice team and included multiple stakeholders; its members were physicians, nursing union leaders, a Board member, and a parent, and some of the members got invited to participate based on their interest in the initiative. All major actions got to get approved by PSSC first, and the committee, among others, "developed the new Patient Safety Report, and created the Focused Event Analysis process for examining the causes of serious medical accidents. The PSSC also reviewed the findings from accident inquiries and monitored the progress of the safety initiative." Edmondson, Roberto, and Tucker, "Children's Hospital and Clinics (A)," 9.

⁸⁶ The FES overlooked the hospital's policy of conducting inquiries. One of the products of FES was the resolution to not only study the serious incidents, but also the less serious, or "near misses." The FES changed the orientation of investigation "from identifying and reprimanding the individuals responsible for the accident to conducting a confidential, 'blameless' analysis of the incident. This process was aimed primarily at documenting the sequence of events as accurately as possible and identifying all contributing systemic failures." Edmondson, Roberto, and Tucker, "Children's Hospital and Clinics (A)," 9.

⁸⁷ The cross-functional team was meeting once a month and comprised of eight employees. The initial team discussed the medication safety issues and each member also served as a link while both communicating with his or her colleagues and tapping into their ideas. Edmondson, Roberto, and Tucker, "Children's Hospital and Clinics (A)," 11.

Learning infrastructure that is created within a SOF unit with the commander's endorsement, employing participants from across all levels and different parts of the unit, can gradually raise awareness, adjust internal procedures, and advise on possible changes to systems and processes. For a SOF unit, unless innovation is handled by small working teams and supported by leadership, its chance of success while trying to shift towards a learning organization are low. Such a unit can learn and improve, but the degree of learning and change will mostly be limited, local, and short term.

e. Organized to Learn vs. Organized to Execute

For a SOF unit to be successful in the short term, it must organize to perform, that is, to execute missions. Long-term success is enabled by organizing to learn, by balancing and employing both approaches appropriately. Which preference is taken into account profoundly influences the multiple traits and approaches to traits in an organization. Understanding the implicit differences between organizing to learn and organizing to execute raises awareness and makes fielding solutions easier.

The “execution-based” hiring preference has been already mentioned in relation to the selection of personnel. Other differences can be observed in training, performance measurement, employee motivation, the meaning of empowerment, internal service goals, and internal structures. Conducting training before and during an assignment is another difference. When an organization focuses on execution, training takes place before, rather than during, the assignment. However, many insights and experiences surface and can be gathered during an assignments—more than those that can be gathered before. Consequently, degrees of learning opportunities are lost. Conducting after-action reviews and collecting lessons learned are not equal to explicit learning. Interconnected to training are performance measurements. The two questions—“did *you* do it right?” and “did *we* learn?” produce very different answers. The first one represents the “*to execute*” approach and the second, “*to learn*.” Similarly, with these approaches, employees are motivated to do a repeated task well, or try new things to see what happens. These two are fine examples of exploitative and exploratory learning—examples of short term and long-term focus. Other examples of differences between

exploitative and exploratory learning are in work structure—where execution-focused organization separates expertise and the learning-focused organization integrates it—and process goals, where execution-focused organization tends to drive out variance and learning-focused organization utilizes variance to enhance and improve.⁸⁸

Over a ten-year period, the National Aeronautics and Space Administration organized itself to take two distinct approaches to operations: one was to learn, and the other to execute. The two approaches surfaced during two events that could both have ended in disaster, though only one of them did. These events were the Apollo 13 mission in 1970 and the 2003 Columbia mission. “[When] Apollo 13 was two days into its mission, travelling two thousand miles per hour, one of its primary oxygen tanks exploded.”⁸⁹ The prognosis was not good, and worsening updates were giving less and less time for finding a solution. The flight director ordered the astronauts to lock themselves into a small lunar-excursion module and directed his teams at NASA to separate into different rooms with the task of finding a solution. The task was, as flight director Kranz put it “to stretch previous resources, barely for two men for two days, to support three men for four days.”⁹⁰

Looking for teamwork solutions to unanticipated emergencies had been rehearsed during preparation for the *Apollo 13* flight. After three days, the awaited solution was found. The *Columbia* story is very different; during takeoff, a loose piece of foam hit the wing, and as a result, the space shuttle exploded, over two weeks after this incident happened.⁹¹ Although engineers brought the foam issue to the attention of managers many times, they were always told that “the foam ‘issue’ was nothing new—foam dislodgements had damaged shuttles in previous launches and there had never been an accident.”⁹² Attempts by engineers to talk the managers into sending astronauts out and to check the surface of the shuttle failed as well. In an Harvard Business School

⁸⁸ Edmondson, “Organizing to Learn: Module Notes for Instructors,” 4.

⁸⁹ Senor and Singer, *Start-up Nation: The Story of Israel’s Economic Miracle*, 88–89.

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Ibid.

study, the authors explain the difference between the organizations of an experimental model and of a standardized model; the differences between NASA in the Apollo 13 and Columbia time periods.⁹³

Organizations based on a standardized model value routine, standards, and compliance. Followers are more valued than problem solvers, and exploitation is more valued than exploration. Among individuals, advocacy is more valued than inquiry. Although an interesting direction would be to take a closer look at how an initially exploratory organization makes its way towards a standardized one, the point here is to examine the difference between organizing to learn and organizing to execute.⁹⁴ The obvious principal task of a SOF unit is to perform its mission. Overly execution-focused organization can still learn and improve, but the limitations imposed by the way it is organized will support exploitative learning, at best. For success in the long term, the unit needs to establish a balance between the compulsion to be effective in executing and the ability to continually improve.

⁹³ For more info, please reach out to HBS Study, Columbia's Final Mission. Richard Bohmer, Laura R. Feldman, Erika M. Ferlins, Amy C. Edmondson, "Columbia's Final Mission" (Boston: Harvard Business School, 2004).

⁹⁴ More information on Organizing to Learn and Organizing to Execute can be found in HBS studies Amy C. Edmondson, and Hanna Rodriguez-Farrar, "Electric Maze Exercise" (Boston: Harvard Business School, 2003), and Frances X. Frei, Amy C. Edmondson, and Corey B. Hajim, "Verizon: The Introduction of DSL," (Boston: Harvard Business School, 2003).

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III. EFFECTIVE LEARNING (CONDUCIVE ENVIRONMENT)

Creating a learning organization is not an easy task. For thinking about organizational changes aimed at creating a learning organization, the McKinsey 7S model is a useful tool. The McKinsey 7S model was developed in the early 80s and is one of the few models that have stood the test of time. This model assumes that for an organization to be successful, seven internal components need to align and be mutually reinforcing.⁹⁵ This model can serve multiple purposes, such as improving company performance, forecasting the likely effects of changes, aligning departments and processes during a merger or acquisition, and determining the best way of implementing future strategy.⁹⁶

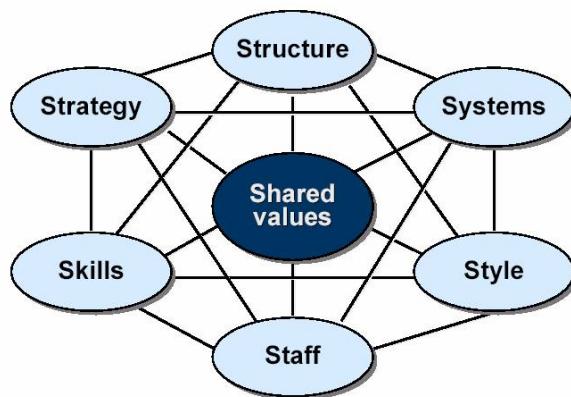


Figure 2. McKinsey 7S model

There are seven elements within the model, and all must be considered when an organization contemplates change.

- **Strategy:** the plan devised to maintain and build competitive advantage over the competition
- **Structure:** the way the organization is structured and who reports to whom

⁹⁵ The McKinsey 7S Framework, *Mindtools*, accessed April 13, 2012.
http://www.mindtools.com/pages/article/newSTR_91.htm.

⁹⁶ Ibid.

- **Shared values:** called “superordinate goals” when the model was first developed, these core values are manifested in the corporate culture and the general work ethic.
- **Style:** the style of leadership adopted
- **Staff:** employees and their general capabilities
- **Skills:** the actual skills and competencies of the employees working for the company⁹⁷

Any change towards creating an effective learning organization must take into account these seven elements. Employing these elements yields a clearer insight into the conditions and practices within an organization.

A. CONDITIONS ENABLING EFFECTIVE LEARNING (“WHAT”)

1. Strategy

For effective organizational learning, a long-term strategy addressing organizational learning and innovation must be in place. The strategy is must focus not solely on measuring productiveness, but include scientific measurement of organizational learning as well.⁹⁸ Such a strategy seeks to balance short-term improvement and long-term innovation. Looking both outside and inside the organization to gain new insights and information is integral to the strategy. Part of this research is focused on environment; information gained is used to assess the environment to make sense of it. The outcomes are mental models that are shared by leadership, to be used when crafting current strategy. In other words, a strategy is based on current and relevant mental models shared by leadership.

⁹⁷ The McKinsey 7S Framework, *Mindtools*, accessed April 13, 2012.
http://www.mindtools.com/pages/article/newSTR_91.htm.

⁹⁸ David A. Garvin, "Building a Learning Organization." *Business Credit* 96, no. 1 (1994), 19.

2. Structure

The structure of a learning organization is flat, and there is a considerable degree of flexibility within it. A good structure supports the creation of temporary teams and allows for communication. The number of boundaries among structural components is significantly low.⁹⁹ Even when a structure has a degree of hierarchy, it is not overly adhered to, but rather, supports the strategy and tasks performed or is abandoned if it impedes learning.¹⁰⁰ A good structure supports horizontal, vertical, and diagonal communication and allows for mutual adjustment when appropriate.¹⁰¹ Reporting is based on assignments and not solely on hierarchical and traditional top-down channels. A knowledge base, shared and maintained, is part of the structure.

3. Systems

Daily activities in a learning organization include executing and learning within a continuously maintained and contextually dependent balance. Daily activities walk the balance between exploiting experience, seeking efficiency, and doing known tasks better, versus exploration, questioning and reassessing old tasks, and looking for new tasks, solutions, and approaches. Performance is measured according to learning as well as to execution. Within daily tasks, there is a time allocated for reflection and analysis.¹⁰²

⁹⁹ The importance of opened boundaries in order to stimulate exchange of ideas was mentioned by David Garvin. "Boundaries inhibit the flow of information; they keep individuals and groups isolated and reinforce preconceptions. Opening up boundaries, with conferences, meetings and project teams, which either cross organizational levels, or link the company and its customers and suppliers, ensure a fresh flow of ideas and the chance to consider competing perspectives." Garvin, "Building a Learning Organization." 28.

¹⁰⁰ Reasons for abandoning structure in support of learning might be, creation of temporary learning teams, creating learning infrastructure, running forums in support of information gathering, prototyping and experimenting while using cross sectional and diagonal slice teams.

¹⁰¹ Henry Mintzberg explains the use of mutual adjustment, as "informal communication and interaction of competent experts." Mintzberg. "Organization Design: Fashion or Fit?" 111.

¹⁰² David Garvin mentions the time for reflection and analysis in order to "think about strategic plans, dissect customer needs, assess current work systems, and invent new products. Learning is difficult when employees are harried or rushed; it tends to be driven out by the pressures of the moment." Garvin, "Building a Learning Organization," 28.

4. Shared Values

According to Gareth Morgan, shared values are based, on a “culture that promotes sharing ideas, openly discussing problems, questioning assumed consensus, and raising conscious awareness.”¹⁰³ This culture is preferred over one that values meeting deadlines and sticking to schedule.¹⁰⁴ Constant questioning is valued more than advocating one’s ideas. Collaborative work is valued over the achievements of individuals. Open dialogue and discussion are the norm.¹⁰⁵

5. Style

Leaders’ decision-making style includes sharing their knowledge of their own strengths and weaknesses.¹⁰⁶ Decisions are reached not by individuals in leadership positions, but rather by collaboration between leaders and employees. Instead of pretending to be perfect, leaders embrace their weak sides and balance them within the team.¹⁰⁷ Thus they create a holistically achieved result, and an environment of psychological safety at the same time. Leaders are not directing so much as coaching and making conditions conducive to learning and executing. They communicate not in order to pass the message, but to create shared understanding, promoting inquiry over advocacy.

¹⁰³ Gareth Morgan, *Images of Organization* (2nd Ed.), Thousand Oaks, CA, US: Sage Publications, Inc, Thousand Oaks, CA, 1997.

¹⁰⁴ Linda Hamm, Columbia Shuttle Final Mission, *Columbia Shuttle STS-107* (2007): 3, accessed April 13, 2012, <http://userwww.sfsu.edu/~yarrow/Knowledge%20of%20PA/ColumbiaMemoSandahl.pdf>.

¹⁰⁵ Peter Senge explains the need for both dialogue and discussion and explains the difference. According to Senge, while dialogue involves “free and creative exploration of complex and subtle issues, a deep ‘listening’ to one another and suspending of one’s own views. By contrast, in discussion different views are presented and defended and there is a search for the best view to support decisions that must be made at this point.” Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 220.

¹⁰⁶ Deborah Ancona, Thomas W. Malone, Wanda J. Orlikowski, and Peter M. Senge, “In Praise of the Incomplete Leader,” *Harvard Business Review* 85, no. 2 (2007): 99.

¹⁰⁷ Ancona, Malone, Orlikowski, and Senge. “In Praise of the Incomplete Leader,” 99.

6. Staff

Employees in a learning organization are not controlled, but empowered.¹⁰⁸ Thus they do not feel directed, but instead they know they are part of an overall effort. Mistakes are not held against the individual, but are perceived as a part of learning.¹⁰⁹ Knowledge is power.¹¹⁰ People are hired based on diversity of their skills, and ability to learn. Instead of being expected to perform the job, employees are expected to learn. The hiring priority is for problem seekers and solvers over followers.

7. Skills

In a learning organization, prevailing skills are more related to generative learning than adaptive learning.¹¹¹ Employees are trained in problem solving, consensus reaching, and analyzing data.¹¹² They understand and employ dialogue and discussion.¹¹³ Innovation and inquiry prevail over routine and advocacy.

B. PRACTICES FOR EFFECTIVE LEARNING (“HOW”)

1. Strategy

For employees to become committed to their organization’s strategy, managers need to create a strategy based on collaborative effort. In communicating, managers need

¹⁰⁸ Ajay Agarval, Learning Organization, *HR Folks*, 8, accessed June 6, 2012.
<http://www.hrfolks.com/articles/learning%20organization/learning%20organization.pdf>

¹⁰⁹ Richard Farson and Ralph Keyes, "The Failure-Tolerant Leader," *Harvard Business Review* 80, no. 8 (2002): 71.

¹¹⁰ Ajay Agarval, Learning Organization, *HR Folks*, 8, accessed June 6, 2012.
<http://www.hrfolks.com/articles/learning%20organization/learning%20organization.pdf>

¹¹¹ Adaptive learning is “a type of organizational learning that focuses on past successes as well as the use of these as a basis in developing future strategies and successes. [It is] used by organizations for making incremental improvements to their existing products, services, and processes in responses to their changing business environment.” “Adaptive Learning,” *Business Dictionary.com*, accessed June 13, 2012. <http://www.businessdictionary.com/definition/adaptive-learning.html> Prevailing use of generative learning over adaptive learning in learning organizations mentioned by Ajay Agarval, Learning Organization, *HR Folks*, 8, accessed June 6, 2012.
<http://www.hrfolks.com/articles/learning%20organization/learning%20organization.pdf>.

¹¹² Garvin, "Building a Learning Organization." 21–22.

¹¹³ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 220.

to explain and show the reasons behind the strategy chosen. If the managers want employees to get committed, they must let each employee choose to do so, because strategy is based on vision, and vision is hard to impose on somebody.¹¹⁴ When forced, it can only secure compliance, which is far from enrollment or commitment.¹¹⁵ Because of this, managers need to create a strategy as part of a collaborative effort and communicate it as such. While creating and assessing the strategy, managers need to base their work on current mental models and must regularly assess and question these models in a collaborative fashion to ensure employee support and a shared vision for the future.

2. Structure

Managers need to introduce a considerable degree of flexibility into a structure, and then exercise that flexibility. A structure is conceived, approached, and assessed by managers as a framework that exists to support the organization's aims, not something that needs to be rigidly held on to. In creating and adjusting structure, managers need to be creating and adjusting conditions favorable to the creation of temporary teams, which will be either diagonal-slice, natural, or peer oriented. As part of the structure, managers should support the creation of forums, databases, and other tools for retaining knowledge.

3. Systems

When measuring performance, managers need to focus on employee learning as well as execution, and this priority must be communicated to employees. Meetings are not mainly places for passing on commands or advocating views, but for open inquiry and sharing insights. Managers need to openly discuss the need for reflection and create an open environment.

4. Shared Values

When promoting shared values, managers should refrain from dictating a distant and unfamiliar list of core values created by themselves or somebody else. Rather, they

¹¹⁴ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 212.

¹¹⁵ Ibid.

need to communicate their values by personal contact and example. They base their communication on explanation of the reasons behind shared values, and immerse in inquiry over the presence of its different constituents. Through open discussion and inquiry, employees are more likely to embrace shared values and become enrolled and even committed.

5. Style

Leaders need to practice a leadership style in line with their vision for the future of the organization, and, with a skillful blend of communication, promotion, and inquiry, create an environment of collaboration. In this environment, employees become empowered without the danger of fragmentation and dissolved power. Leaders create and support an environment of psychological safety and openly display their weaknesses, demonstrating that it is fine to acknowledge one's limitations and that the purpose of the environment is to meet, collaborate, mutually supplement each other, and, most importantly, learn.

6. Staff

When selecting new employees, candidates should be assessed not only on their ability to carry out certain tasks, but on a wider range of skills, including communication, social skills, and collaboration. New staffs are hired based on an expectation to learning, not of knowing it all and being prepared to execute tasks. Individuals are expected to learn constantly. Managers plan and create conditions for education, training, retraining, learning, and reflection. The external task environment is not allowed to drive the rotation of personnel through positions; managers need to carefully plan for rotation and create conditions where individuals can learn, perform, make decisions, and experience outcomes.

7. Skills

Certain everyday leadership skills must be exercised continuously by the organization's leaders. Managers create conditions for learning, practicing decision making, collaborating, and exercising interpersonal skills.¹¹⁶ The distinctive skill among employees is generative learning.¹¹⁷

C. MEASURING LEARNING

1. Need for a Measurement

Managers need to measure both performance and learning, and scientific methods must be utilized to this end. Otherwise, as Garvin put it, "the organization will remain a prisoner of 'gut fact' and sloppy reasoning, and learning will be stifled."¹¹⁸ Managers have long faced the challenge of measuring organizational learning. Learning curves and experience curves are still widely used,¹¹⁹ but the weakness of these measures is that they focus on "a single measure of output."¹²⁰ Hence they are not very useful for measurements within mature organizations.

2. Successful Practices

One useful measure of learning is the "half-life" curve, which measures the time it takes to improve 50 percent in any specified performance measure.¹²¹ This flexibility of this measurement makes it applicable in a wide variety of uses, but its weakness is that it focuses on outputs. Garvin suggests that in measuring improvements in organizational learning, one must consider measuring all three stages of change: cognitive, behavioral,

¹¹⁶ Garvin, "Building a Learning Organization," 21.

¹¹⁷ Ajay Agarwal, Learning Organization, *HR Folks*, 8, accessed June 6, 2012.
<http://www.hrfolks.com/articles/learning%20organization/learning%20organization.pdf>

¹¹⁸ Garvin, "Building a Learning Organization," 21.

¹¹⁹ Ibid., 26.

¹²⁰ Ibid.

¹²¹ Ibid., 27.

and performance.¹²² He asserts that for measuring cognitive changes, surveys and questionnaires may be used; for behavioral changes only direct observation helps; and for performance measures, half-life is useful.

D. WHERE TO START

Creating a learning organization, or building an entirely new one, is not easy. However, certain steps at the beginning will provide a solid start and help in the future. To create a supportive environment is a must. To cultivate an environment of safety, promote enquiry, and foster open dialogue and discussion is a good start. Flattening an organization to some degree, with fewer boundaries, will pay in the future as well. Knowledge retention, decision making, and collaborative tools will set the stage for the internal measurement of learning.

¹²² Garvin, "Building a Learning Organization," 27.

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IV. CHALLENGES TO ORGANIZATIONAL LEARNING

Obstacles that prevent organizations from learning are well known. Many scholars have dedicated substantial portions of their writings to factors that have a negative impact on an organization's ability to learn. Two prominent authors on organizational learning, Peter Senge and David Garvin, refer to these obstacles as "learning disabilities." Where Senge and Garvin differ is on what constitutes these disabilities. While Senge lists seven learning disabilities that are related to or cause limited understanding of the events taking place within an organization, Garvin structures his analysis around three stages of organizational learning.¹²³ Another set of obstacles to organizational learning was introduced by Jeannette Harrison and Emily Boyle, who use the term "learning traps."

A. LEARNING DISABILITIES ACCORDING TO PETER SENGE

Peter Senge's book on organizational learning, *The Fifth Discipline*, contains a section dedicated to learning disabilities.¹²⁴ Senge states that the findings of multiple studies show that half of all firms disappear before reaching forty years of existence.¹²⁵ He notes this happens regardless if:

there is abundant evidence in advance that the firm is in trouble. This evidence goes unheeded, however, even when individual managers are aware of it. The organization as a whole cannot recognize impeding threats, understand the implications of these threats, or come up with alternatives.¹²⁶

Senge believes that the high mortality of companies is a direct consequence of their inability to learn.¹²⁷ Moreover, this inability to learn, i.e. various learning disabilities, is a

¹²³ The three stages of learning used by Garvin are: *acquire*, *interpret*, and *apply*. Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 149.

¹²⁴ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 17.

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Ibid., 18.

product of the way companies are designed and managed, how jobs are described, as well as of the way people are conditioned to think and interact.¹²⁸ Senge's learning disabilities are:

I AM IN MY POSITION

The first learning disability is caused by confusing one's job with one's identity. When a person identifies with a set of tasks and not the purpose of the larger organization, he is limiting his outlook as far as responsibilities go. Such a person is working inside the bubble of one single position. He does not look outside, and is not aware of the consequences of his actions and decisions.

THE ENEMY IS OUT THERE

In essence, the second disability is blaming somebody else, and is connected to *I am in my position*. Since the person is missing the surrounding environment, he can hardly understand how his actions spread beyond the boundary of his position. And when those actions have consequences that hurt somebody, the common reaction is to blame somebody else. Under the influence of this disability, a person tends to apply a solution based on wrong assumptions.

THE ILLUSION OF TAKING CHARGE

The third disability describes the illusion of proactiveness. Being proactive is the right approach, but unfortunately, proactiveness is often only reactivity in disguise. "True proactiveness comes from seeing how we contribute to our own problems."¹²⁹

THE FIXATION ON EVENTS

The fourth disability is caused by focusing on events instead of patterns. Individuals tend to focus on events. Within an organization, there is a tendency to focus on events. Consequently, conversations are dominated by concern about events, and that

¹²⁸ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 18.

¹²⁹ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 21.

leads to events-based explanations. Explanations based on events may be correct sometimes, but they prevent understanding once the problems involve longer-term changes.

THE PARABLE OF THE BOILED FROG

The fifth disability is limited adaptation to a gradually building threat. The parable of the boiling frog is used to illustrate that slow, gradual change may be much more challenging to perceive than immediate changes. The frog put in cool water feels comfortable, and if the temperature is slowly elevated, it does not sense the growing danger, but becomes groggier, and, in the end, dies in boiling water. To see the slower processes requires slowing down our own pace and paying attention to gradual changes as well as sudden ones.

THE DELUSION OF LEARNING FROM EXPERIENCE

The sixth disability takes place when one expects to learn from experience. Unfortunately, the consequences of one's decisions could be of a long-term nature, and thus not directly observable. The fact that the best learning takes place from direct experience is well known, however "what happens when we can no longer observe the consequences of our actions?"¹³⁰ The dilemma cited by Senge is that our most important decisions are usually related to a long-term perspective, and it is often impossible to experience their consequences. This is especially observable in an organization where a person stays in one position for only a short period of time (i.e., two years) and, on top of that, experiences a deployment for six to nine months. Under these conditions, to emplace any significant decision with system-wide consequences and observe its implications in either the home unit or arena of deployment becomes difficult. Once such a decision begins to have an impact on other divisions, the difficulty only gets compounded.

“THE MYTH OF MANAGEMENT TEAM”

Chris Argyris, an expert on learning within management teams, argues that “the [management] team may function quite well with routine issues. But when they confront

¹³⁰ Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 23.

complex issues that may be embarrassing or threatening, the ‘teamness’ seems to go to pot.”¹³¹ Senge confirms this barrier and uses the example of enforcing this shortcoming in organizations by “rewarding the people who excel in advocating their views, not [those] inquiring into complex issues.”

B. LEARNING DISABILITIES BY GARVIN

An alternative set of obstacles to organizational learning has been formulated by David Garvin.¹³²

Garvin sees organizational learning in three stages: acquiring, interpreting, and applying. His categories of learning disabilities follow these learning categories as well. Garvin’s learning disabilities are “common and often unavoidable by-product of the way people think and act,”¹³³ and they can arise during any of the three stages of learning.

The three primary disabilities that impede the acquisition of new information are blind spots, filtering, and lack of information sharing.

Blind spots happen when the searching is either limited or pointed in the wrong direction. For the military, a chronic blind spot is the belief that the enemy will fight the same way he did in the last war, or that the enemy will be the same as he was last time. In a sense, this is the case of underestimating the enemy’s ability to innovate and evolve.¹³⁴

Another instance of disability is filtering. “Psychologists found that exposing supporters and opponents of capital punishment to *identical* evidence led them to

¹³¹ Chris Argyris, *Overcoming Organizational Defenses: Facilitating Organizational Learning* (Needham Heights, MA, US: Allyn & Bacon, 1990).

¹³² Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 28.

¹³³ Ibid.

¹³⁴ In Pete Blaber’s book, one of the chapters is dedicated to the initial stage of conflict in Afghanistan. Blaber describes, how during the first weeks of the conflict, the old intelligence reports were “dusted off” and confirmed empty targets were designated. In the same passage of the book, he also describes intelligence briefing based on outdated data, and the delay it took before the military started to use current data from the battlefield. Pete Blaber, *The Mission, The Men, and Me* (New York: Berkley Trade, 2010), eBook, 138–150.

diametrically opposed conclusions.”¹³⁵ Based on one’s previous experience, a person tends to ignore or leave out the data that does not resonate with his set of data.¹³⁶

Lack of information sharing only makes the other disabilities worse. Information deposited so that other parts of an organization cannot use it equals information not had; and such practice is not uncommon at all. “Information hoarding is a fact of organizational life, especially in political settings or where information is highly valued.”¹³⁷ Problems in intelligence sharing among U.S. agencies before 9/11 are well known, and resulted in organizational changes. However, the multiple levels of the “Releasable To” classification of information, commonly used in combined operations in Afghanistan, is an equally good example.¹³⁸

Regardless of the quality of information acquisition, before any information gets applied, it needs to be accurately interpreted. David Garvin mentions many possible interpretative mistakes:

- ***illusory correlation***: viewing events as related simply because they appeared together
- ***illusory causation***: ascribing causality to events that occur in sequence and seem to be linked
- ***the illusion of validity***: increasing confidence in one’s judgment, especially with larger and larger amounts of information, even though the accuracy of judgment remains unchanged
- ***framing effects***: different responses to identical, uncertain payoffs that have been framed as potential gains rather than potential losses
- ***categorical bias***: the use and persistence of stereotypical categories for classifying people and events, even when faced with conflicting information
- ***availability bias***: assessing the probability of events by the ease with which examples come to mind, rather than their actual frequencies or likelihoods
- ***regression artifacts***: ascribing causality to actions that change a variable from an extreme (high or low) level to an average level,

¹³⁵ William H. Starbuck and Frances J. Milliken, “Executives Perceptual Filters: What they Notice and how they make Sense,” *Strategic Management Policy and Planning*, Vol. 2, edited by Hambrick, Donald C. (US: Elsevier Science/JAI Press:1988), 40–46.

¹³⁶ Starbuck and Milliken, “Executives Perceptual Filters: What they Notice and how they make Sense,” 40–46.

¹³⁷ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 30.

¹³⁸ Documents of different levels of classification, together with diversity of releasable to (US ONLY, FIVE EYES, ISAF) are meant here.

- even though the change is really due to chance (i.e., the greater likelihood that an average score will be obtained rather than an extreme value)
- **hindsight bias:** the systematic biasing of probability estimates toward actual outcomes.¹³⁹

Of the biases above, some current examples might be the “well-established” connection between the surge of coalition forces in Iraq and the improvement of the security situation. While the credit really belongs to other factors, the case has been made that the improvement was caused by the increased number of coalition forces. This is illusory causation. The event is correlated, but has no causality towards the result.¹⁴⁰

Three disabilities related to the “applying” stage of learning are mentioned by Garvin: passivity, risk aversion, and lack of self-awareness.¹⁴¹ While passivity and risk aversion are well known, lack of self-awareness was best described by Chris Argyris in noting the inconsistency between how people say they will act and what they actually end up doing. In his book *Action Science* he states that “[the] distinction is not between theory and action but between two different theories of action: those that people espouse, and those that they use.”¹⁴² Such lack of awareness prevents learning, since ignorance of this discrepancy does not allow admitting the need for learning in the first place.

C. CAPABILITY LEARNING TRAPS BY HARRISON AND BOYLE

Another set of obstacles to organizational learning is caused by lack of balance between exploratory and exploitative learning. When exploitative learning prevails, a firm is likely to fall into one of the three capability learning traps involving distinctive competencies, power, and success.¹⁴³

¹³⁹ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 31–32.

¹⁴⁰ Jim Garamone, “Surge Successful By Any Measure,” *U.S. Department of Defense*, July 23, 2008, accessed June 6, 2012, <http://www.defense.gov/news/newsarticle.aspx?id=50585>.

¹⁴¹ Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, 33–34.

¹⁴² Chris Argyris and Donald A. Schon, *Theory in Practice: Increasing Professional Effectiveness*, edited by Argyris, C. 1974, 6–7.

¹⁴³ Daniel A. Levinthal and James G. March, “The Myopia of Learning,” *Strategic Management Journal* 14, (1993): 105.

The need for balance between the two types of experiential learning (the exploratory and exploitative) was discussed by Levinthal and Marsch.¹⁴⁴ Their work was built upon by Harrison and Boyle, who identified one of the reasons for imbalance in the managerial mental model.

If a firm would be successful, it needs a distinctive capability; such capabilities are “rare, inimitable and nonsubstitutable” … “bundles of complementary resources such as tacit knowledge, administrative skills, routines and physical assets with the flexibility to generate adaptive and valuable outputs.”¹⁴⁵ In other words, for success, a firm needs a unique and non-replicable ability that secures success over its competitors. Especially advantageous are asymmetrical abilities—those that cannot be copied by other competitors.¹⁴⁶

Distinctive capabilities are obtained through experiential learning, which can be either exploratory or exploitative.¹⁴⁷ While exploratory learning seeks to gain new knowledge, exploitative learning builds upon previous knowledge and improves it. There are two reasons it is typically easy for a firm to focus on exploitative learning. “First, it is difficult for firms to know when to begin learning new capabilities based on exploratory learning, and second, firms often do not know what new capabilities to learn.”¹⁴⁸ The reason for it is that “by the time knowledge is needed it is too late to gain it; before knowledge is needed it is hard to specify precisely what knowledge might be required or useful.”¹⁴⁹

¹⁴⁴ Levinthal and March, "The Myopia of Learning," 105.

¹⁴⁵ Danny Miller, "An Asymmetry-based View of Advantage: Towards an Attainable Sustainability," *Strategic Management Journal*, Vol. 24, (2003) 961-976. And Jeannette Harrison and Emily Boyle, "Falling into Capability Learning Traps: The Role of the Firm's Predominant Managerial Mental Models," In *Management Decision* 44. no. 1 (2006): 31.

¹⁴⁶ Danny Miller, "An Asymmetry-based View of Advantage: Towards an Attainable Sustainability," *Strategic Management Journal*, Vol. 24, (2003) 961–976.

¹⁴⁷ Harrison and Boyle, "Falling into Capability Learning Traps: The Role of the Firm's Predominant Managerial Mental Models," 32.

¹⁴⁸ Ibid.

¹⁴⁹ Levinthal and March, "The Myopia of Learning," 103.

If an organization focuses predominantly on exploitative learning, it is likely to fall into the distinctive competencies, power, or success trap.¹⁵⁰ The distinctive competencies trap is based on the fact that, once a competency becomes successful, the tendency is to focus on the distinctive competency and further enhance it, taking away from “other bases of experience and knowledge,” distracting the company from paying attention to other aspects of its development and making it “more vulnerable to change in their environment.”¹⁵¹ Unfortunately, a company often loses its ability to adjust to its environment as well. “The power trap occurs when a firm becomes so dominant in its business sector that it can influence its environment.”¹⁵² Last is the success trap, occurring when a firm learns primarily through exploitative learning and the results consequently do not fit with a changed environment. Imbalance is not the only reason for falling into these capability-learning traps, as Harrison and Boyle’s case study shows; managerial mental models can be another. In their study of a British company, management focused its main effort on being as efficient as possible and failed to innovate in a way that competitors could not replicate. After some initial successes, they eventually lost their ability to field trendy products and increasingly lost their market.

One of the ways to evade these traps is to maintain a balance between exploratory and exploitative learning, which is tied to a change of predominant managerial mental models.¹⁵³ Many authors find scenario planning to be an appropriate tool for this purpose.¹⁵⁴ Reasonable justification is offered by Brenneman *et al.*, where, through scenario planning, managers “constantly rehearse possible pathways into the future” and

¹⁵⁰ Levinthal and March, "The Myopia of Learning," 105.

¹⁵¹ Ibid., 102.

¹⁵² Harrison and Boyle, "Falling into Capability Learning Traps: The Role of the Firm's Predominant Managerial Mental Models," 32.

¹⁵³ The use of scenario based planning in support of change of managerial mental models was mentioned in 1990 edition of Senge’s book *The Fifth Discipline*. Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 167–168.

¹⁵⁴ Pierre Wack, "Scenarios: Uncharted Waters Ahead," *Harvard Business Review* 63, no. 5 (1985): 72-73. Arie P. De Geus, "Planning as Learning," *Harvard Business Review* 66, no. 2 (1988): 70–74. And Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 167-168.

build “sets of mental models through which [the] managers enrich the corporate one.”¹⁵⁵ Consequently, managers can “rethink their world view” and take into account “the changing business environment more intimately.”¹⁵⁶ As a result, they are better conditioned for assessing new directions.

A striking example of the distinctive-competency trap is the change of world order after the Iron Curtain fell and the Warsaw Pact dissolved. Regardless of the number of irregular conflicts around the world in the last 60 years, the U.S. military has not significantly adjusted its approach. It took another 17 years to react to the insurgencies in Iraq and Afghanistan, and it was not until 2006 that the new FM 3-24, “Counterinsurgency,” was finally published.¹⁵⁷

¹⁵⁵ William B. Brenneman, J. B. Keys, and Robert M. Fulmer, “Learning Across a Living Company: The Shell Companies Experiences,” *Organizational Dynamics* 27, no. 2 (1998): 61-69. In Harrison and Boyle, “Falling into Capability Learning Traps: The Role of the Firm’s Predominant Managerial Mental Models,” 40.

¹⁵⁶ Pierre Wack, “Scenarios: Uncharted Waters Ahead,” *Harvard Business Review* 63, no. 5 (1985): 72-73. And Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*, 167-168.

¹⁵⁷ The foreword of the FM 3-24 opens with the statement that its purpose is to fill the doctrinal gap. David Howell Petraeus and James F. Amos. *Counterinsurgency: FM 3-24* (2006). Boulder, CO: Paladin, foreword.

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V. ORGANIZATIONAL LEARNING: THE SOF PERSPECTIVE

Certain organizational characteristics are common to all military units, including special-operations forces. Better understanding of these characteristics and their influence on organizational learning within a SOF may be attained by examining the general differences between the large, conventional military and a SOF. This discussion can yield insight into a given organization's predisposition to becoming a learning organization.

A. MILITARY AND SOF PERSPECTIVE

1. Strategy

a. *Military*

A traditional military organization exhibits a top-down approach. A conventional military is bureaucratic, strongly hierarchical, and "tall," meaning many layered. These characteristics force a slow response to required changes and are tolerant to reaction against innovation and organizational adjustments. Typically, inputs from experience are incorporated in a tardy manner. The notion of future strategy is summed up by the widely known saying that *the military always prepares for the last war*. As plans for the future are often dominated by plans to acquire newer and better equipment, the opportunity for explorative learning is limited.

b. SOF

Due to the nature of some of their tasks, SOFs are more active in peacetime. As such, a SOF tends to be forward looking.¹⁵⁸ With SOF being part of the larger services, the implications for the future may not be implemented fully. Also, when a SOF is unduly influenced by the larger military, i.e., becomes conventionalized; it naturally becomes less proactive and more reactive. Both the smaller size of SOF units and elements within the SOF culture tend to support a bottom-up approach, with more input from the lower echelons communicated upwards. As higher leadership drives the plans for the future, a SOF's forward-looking, more bottom-up exchange of information, and the strategic utility of SOF units allow for strategizing that is more focused on the future than is common among the conventional military. For a SOF, in order to capitalize on its predisposition towards greater openness, a learning map would be a convenient tool.¹⁵⁹ SOFs are located relatively high within the organizational structure of the military, which supports their ability to be agile in devising future strategies. Smaller and higher placed units, i.e., the Tier 1 units or the national assets, are leading in this field.

2. Structure: Military versus SOF

a. Military

A typical military organization is strongly hierarchical, with multiple departments, divisions, and levels of management, leadership, and command. Each of these levels answers to a higher level of authority. Vertically tall hierarchical bureaucracies are known for redundancy and rigidity and for slow learning and implementation of changes. The nature of such an organization precludes it from using

¹⁵⁸ For an example of such tasks, a SOF Core Activities listed SOCOM website can be useful. The website lists among others Foreign Internal Defense (FID), Civil Affairs Operations, Counterterrorism (CT), and Security Force Assistance (SFA) amongst other. About SOCOM, *United States Special Operations Command*. Accessed June 6, 2012. <http://www.socom.mil/Pages/AboutUSSOCOM.aspx>.

¹⁵⁹ Learning map is a strategy based solution focusing on skills needed for future, generated by collaborative effort of the organization's members. Learning Maps, *David Hutchens*, Accessed June 6, 2012. <http://www.davidhutchens.com/LearningProducts/.learningmaps..html>

fluid solutions such as temporary structures and makes it prone to creating new divisions and departments. During the implementation of changes and learning, such an organization grows—and this brings more implications. The qualities of flat, agile and nimble organizations are usually missing.

b. SOF

The structure of SOF units is usually flatter than those of the conventional military. Smaller units are more favorable to rapid organizational learning, but a hierarchical quality is still present. Due to their dispositions, SOF units tend to be less rigid and more nimble, but temporary teams or dynamic networks are not typically present. Because the use of task forces and task units is a common practice, the utility of learning teams further elevates the SOF's ability to learn as an organization.

3. Systems: Military versus SOF

a. Military

Decisions are made at higher levels of management, and the tendency to follow established rules prevails. Day-to-day business is based on routine, driven by rules and SOPs. Performance measures use task-focused metrics and do not measure learning. Due to the size, height, and bureaucratic nature of the organization, the decisions made and processes to be influenced take more time. The routine execution of tasks vastly predominates over organizational learning and innovation.

b. SOF

Typically, SOFs are less hierarchical and bureaucratic than the conventional military, but both characteristics are still present. Where the tendency to delegate decisions to lower echelons prevails, the unit is more agile and nimble. Due to its smaller size and the greater maturity and experience of its personnel, a SOF is more prone to innovation and learning. The widely used practice of developing, testing, and fielding new equipment through an SOF is well known. Practices that lead to innovation

and improvement in the execution of tasks, and a receptivity to innovative solutions, are more frequently present within an SOF than within the military at large. Under conditions of increasing operational tempo, a tendency to focus on execution may skew the learning dynamic towards exploitative, and thus hinder the unit in its long-term effort. As a further detriment to SOF learning, the unit may have a fast turnover of personnel, making knowledge gaining, sharing, and retention difficult.

4. Shared Values: Military versus SOF

a. Military

In the traditional military, shared values are often arbitrarily imposed by superiors. These values limit open discussion, constant questioning, or raising awareness.¹⁶⁰ Such values are more focused on execution of orders and performance, and are less supportive of practices needed in a learning organization. As the tolerance for mistakes is low, learning is inhibited.

b. SOF

The values of an SOF organization are nested within its services' values. Due to the nature of their tasks, and their tasks' indirect nature, these values are more supportive of organizational learning, but do not necessarily match them. On the other hand, the coherence of small teams supports the need to innovate and to act on innovative approaches. This effort is further heightened by the unit's (i.e., team or platoon's) imbalance of size; frequently favoring the enemy, for imbalance can be leveraged by innovative solutions. Further, the typical SOF value of "excellence" is supportive to practices of learning.

¹⁶⁰ For example the U.S. Army core values are: loyalty, duty, respect, selfless service, honor, integrity, and personal courage. Such values do support superior performance, but do not promote organizational learning. http://usarmy.vo.llnwd.net/e2/rv5_downloads/values/armyvalues.pdf.

5. Style: Military versus SOF

a. *Military*

The pervasive management style in military units is highly centralized control, as compared to learning organizations, where the leadership style is closer to that of facilitator or coach.¹⁶¹ Control is useful for efficiency and effectiveness. While the latter are inherent values in the traditional hierarchical organization, learning organizations, by contrast, aim for excellence and organizational renewal. Managers within a bureaucratic organization expect performance per given standards. Balancing imperfections among staff, admitting one's own imperfections, and creating a collaborative working environment are not present.

b. *SOF*

The size of SOF units drives them away from a control-driven approach. Although bureaucracy and hierarchy have some impact on an SOF, the size of subordinate units and mode of work support less strict control. SOF units tend to be more flexible and prone to open culture, and thus more likely to have an innovation-friendly internal environment. Where SOF units with more conventional approaches in leadership style will be commensurately less likely to spur learning and innovation, those focused more on facilitating and coaching will arrange the unit in a manner suitable for learning.

6. Staff: Military versus SOF

a. *Military*

While the traditional military does seek hard work and performance, it is more in line with a traditional organization that seeks efficiency and effectiveness. They can select their staff to some degree, since volunteers must pass certain requirements, but the qualities sought are associated with performance and following. Thus problem

¹⁶¹ Ajay Agarwal, Learning Organization, *HR Folks*, 8, accessed June 6, 2012.
<http://www.hrfolks.com/articles/learning%20organization/learning%20organization.pdf>.

seekers and problems solvers are not specifically valued in the general military. The systems in place do not utilize them, since performance is based on norms and standards more than anything else. Employees are motivated to perform and to stay within the boundaries of the system—crossing these boundaries is not encouraged. Whatever innovation and learning takes place is exploitative in nature, and exploration happens only under certain conditions: for example, when in a crisis. For the members of such an organization, dialogue and open discussion are not common practice.

b. SOF

The usual practice of acquiring personnel within SOF is selection; as such selection criteria are of great importance. When focused on the right qualities, the selection process can have a critical impact on the unit in the long term. While lowering standards may bring more friendly numbers at any given time, adherence to a strictly quality-focused approach will bring a promising future. Units that seek diversity and the ability to learn and value problem seekers and solvers naturally build their capacity to learn and innovate. Maintaining high selection standards and focusing on the right qualities is one of the best tools readily available to a SOF. As do business leaders, SOFs tend to focus on hiring the best possible, but also need to instill confidence in existing personnel as well. Such practices support retention within the unit. Due to its focus of quality, a SOF is better suited for learning, but the overall degree of success is influenced by the execution and degree of capitalization upon tools available.

7. Skills: Military versus SOF

a. Military

Within the traditional military, the prevailing focus is on adaptive learning, and their shared values support this type of learning. Interpersonal and collaborative skills are not the norm and are not part of general training. The organization

focuses on execution and expects its employees to achieve standards; it does not really need such skills. To become a learning organization, many significant changes would need to take place.

b. SOF

While the conventional military is clearly predisposed to adaptive learning, SOF can go on to achieve generative learning. Such learning is enabled by proper selection, managerial practices, instilled values, and effective strategy. As the unit structure becomes more flat, the dominant learning skills of the SOF can shift from adaptive to generative.

B. SUMMARY OF COMPARISON

As a part of larger military forces, SOFs share some of the characteristics of the whole. A SOF is not as strongly hierarchical and tall as the rest of the military, but it remains a bureaucratic and hierarchical organization. From the organizational standpoint, there are certain advantages of SOFs over conventional militaries that are supportive to organizational learning.

SOF's peacetime engagement includes a diverse set of activities. Their smaller size and internal culture, supporting a bottom-up approach, may have a supportive effect on organizational learning. Differences among SOF units may be expected to have an impact on organizational learning as well. Higher operational tempo, together with a high turnover of people, may limit organizational learning, because sharing knowledge and information becomes harder. Larger SOFs may, under such conditions, be harder to staff with the required high-quality personnel. The smaller size of a SOF basic unit, as comparing to conventional units, creates better conditions for learning and innovation. The selection of leaders and the leadership style they employ have a major influence on learning ability. The selection process for a SOF, together with promotion practices, may bring a reasonable difference in its predisposition towards organizational learning, although the high turnover and operational tempo create obstacles to maintaining the highest standards.

It is less complicated for SOF to become a learning organization than for a conventional military. As a result of the differences outlined in this section, SOF is also more likely to learn and innovate. However, to become a learning organization, the SOF still needs to make adjustments and changes within its organizational structure and practices.

VI. ANALYSIS AND DISCUSSION

A. METHODS DESCRIPTION

1. Survey Design and Description

The survey “SOF as a Learning Organization” was based on information related to learning organizations, organized into two main sections. The first section aimed at determining the presence of ten elements deemed supportive of organizational learning.¹⁶² The second section asked demographic questions to capture information about respondent backgrounds. See Appendix A for the complete survey instrument.

The questions in the demographic section were about nationality, rank, experience in the military and SOF, and previous positions. These demographics were gathered at the end of survey, on the assumption that, due to the secretive nature of the units surveyed, some respondents might be reticent. The thought was that, having devoted time to more substantive questions, they would be inclined to answer the demographic questions as well. Further, with this ordering, if the respondent chose not to complete the demographics, he would at least have answered the substantive questions.

2. Survey Pretesting and Fielding

The questions in the survey were based on the literature described in Chapter II. The formulation of questions started early in this research and was discussed with Mr. Doowan Lee and Professor Frank Barrett at NPS. The manner of questioning and several specific questions were inspired by a *Harvard Business Review* article by David Garvin, Amy Edmondson, and Francesca Gino, “Is Yours a Learning Organization?”¹⁶³ This

¹⁶² These elements were: Framing and Reframing, Intelligent Failure, Balanced Exploration and Exploitation, Psychological Safety, Manager’s Tasks Supportive to Organizational Learning, Learning Teams, Mental Models, Selection, Learning Infrastructure, Organized to Learn.

¹⁶³ David A. Garvin, Amy C. Edmondson, and Francesca Gino, "Is Yours a Learning Organization?" *Harvard Business Review* 86, no. 3 (2008): 109–116.

article concerns a web-based tool that assesses a company's capabilities as a learning organization. After the survey questions were written, they were presented to four students for clarity and comprehension. The last phase of preparation was entering the questions into the online survey engine, SurveyMonkey. Six people were asked to take the survey online, and discussion took place to assess to what degree the survey was clear and how well the respondents understood the questions—in other words, whether the respondents' understanding was congruent with the author's intent. Based on these discussions, some questions were reformulated and clarifying comments and instructions were added. Regardless of the effort to pretest for congruence, one of the elements was not addressed properly, and thus the questions about managers' mental models were really asking about the degree to which the unit was organized to execute.

The web-based survey tool, SurveyMonkey, allows quick and easy creation of surveys and evaluation of results. An advantage is its ability to contact and track respondents. Because the IRB at NPS approved the recruitment letters as well as the survey questions, contacting the respondents was a matter of having their email addresses. For a complete set of recruitment letters, see Appendix B.

After the respondent email addresses were input into SurveyMonkey, contact was easy. The sending of thank-you letters and reminders was based on the current progress of the survey. Time horizons were subject to the current schedule and the effort to maintain awareness of the survey itself. Based on the typical NPS student schedule, this allowed sending reminders when the ability to respond seemed most likely. A Web-based survey is easy to access, so emailed reminders were sent according to when the respondents might be at their computers. Non-responding persons were reminded approximately every 3–4 days, avoiding weekends and targeting the morning hours when respondents were most likely to check their mailboxes.¹⁶⁴

¹⁶⁴ The guidance for fielding survey and implementing reminders was mostly based on Don A. Dillman, *Mail and Internet Surveys: The Tailored Design Method 2007 Update with New Internet, Visual, and Mixed-Mode Guide* (New Jersey: Wiley, 2006).

The survey was fielded for three months, from February through April 2012, and administered in two waves: first in English and then, for comparison, in the native language of the unit. For fidelity, the translations were verified by a native speaker who was also an NPS graduate. Before fielding, both surveys were tested to ensure that question content and formulation would be understood by the respondents.

3. Survey Respondents

The survey was fielded in two locations. One, intended to examine the pool of DA students with a SOF background, was sent to all DA students. Respondents who enrolled in the program but were non-SOF were later taken out of the raw data set. The second location was chosen for comparison purposes, and a newer, non-U.S., NATO SOF unit was used. This unit adopted the NATO SOF principles fewer than fifteen years ago and was smaller than U.S. Army Special Forces.

A total of 123 surveys was collected, including 71 U.S. and 52 international SOF officers and noncommissioned officers. Figure 3 shows the ratio of U.S. to international respondents.

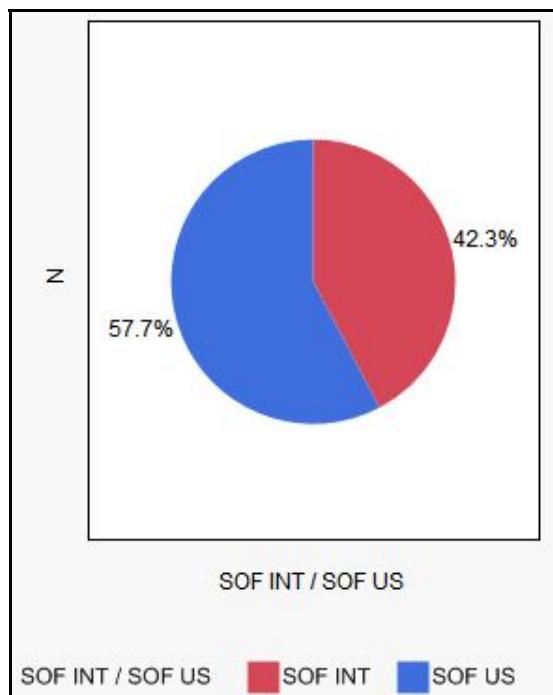


Figure 3. Respondent nationalities: U.S. vs. International

The 51 international respondents were from ten countries.¹⁶⁵ Only four respondents were from non-NATO countries.¹⁶⁶ Figure 4 shows respondents by country.

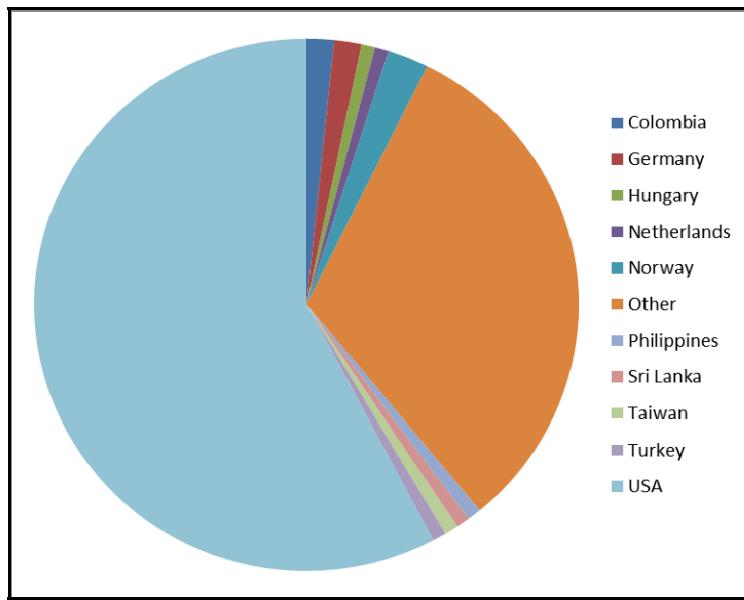


Figure 4. Respondents by country

Due to a lack of representation from some nations, the U.S. and one international SOF unit with significant representation (“Other” in Figure 2) were used for the main comparison. A comparison of U.S. data with the entire international data was used in separate, secondary analyses.

Respondent ranks ranged from E-6 to O-5. A majority of the respondents (70) were O-4s. Figure 5 shows the distribution of respondent ranks.

¹⁶⁵ Countries included Colombia, the Czech Republic, Germany, Hungary, Netherlands, Norway, Philippines, Sri Lanka, Taiwan and Turkey.

¹⁶⁶ Respondents from non-NATO countries (number of respondents) were Colombia (2), Sri Lanka (1) and Taiwan (1).

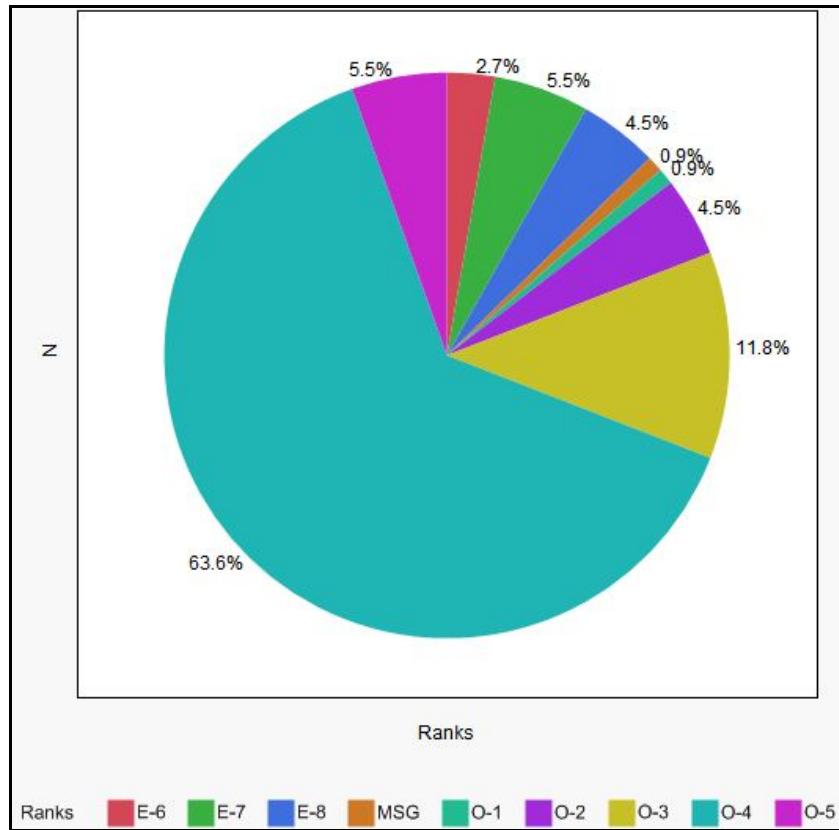


Figure 5. Distribution of respondent ranks

The respondents had a total of 1,533 years of cumulative military experience and 936 years of SOF experience. A majority of the respondents (83) were last assigned at company level or below (including team members).

The variable size of the samples limited what can be inferred from the data. For example, a majority of respondents were students at NPS in the DA department and were not, as such, representative of the SOF population in general. In particular, students at NPS are a distinct slice of the broader SOF population and they are usually captains or majors.

The comparison made between U.S. SOF branches and the non-U.S., NATO SOF units offers insights, but cannot be used for any exact, measurable comparison; thus the results of our comparison yield something more like a preview than a precise result. Furthermore, this comparison is expected to be skewed, due to the fact that most U.S.

respondents held the rank of major, while the “other” unit members ranged from E-6 to O-5. A comparison between U.S. field-grade officers and a slice across the unit is not a comparison of identical groups.

It is safe to assume that students at NPS represent an above-average quality of officers, whether U.S. or international. As these students must pass certain criteria to be enrolled, it is reasonable to assume that their responses have value of notice. Also, their cumulative experience is high.

4. Response Rates

The main guidance on how to implement the survey was drawn from Dillman’s *Mail and Internet Survey*.¹⁶⁷ Dillman’s book provides detailed instructions on how to implement a survey in order to get the highest response rate. The details on the structure of recruitment letters, reminders, and thank-you letters were very useful. The author believes that the use of Dillman’s tailored design method, as well as the professional interest of NPS students with SOF backgrounds, was the main reason for the exceptionally high response rate. Within two weeks after the instrument was fielded, the response rates were 76% answered partially and 69% answered fully. By the end of the fielding period, the final response rates were 81.7% answered partially and 73.9% answered fully. The response rates from non-U.S. NATO SOF units were much smaller. During the time the survey was fielded, the vast majority of the unit members were deployed to other locations.

5. Interview

The main technique used for gathering data was the critical-incident interview. These interviews were focused on events related to organizational learning, new insights, transfer of knowledge, and applying new information in order to change behavior. The critical-incident interview is a qualitative method and its main strength is the depth of

¹⁶⁷ Don A. Dillman, *Mail and Internet Surveys: The Tailored Design Method 2007 Update with New Internet, Visual, and Mixed-Mode Guide* (New Jersey: Wiley, 2006).

insight available. The idea was to gather concise stories from each interviewee's experience that would relate to learning. Interviews were afterwards coded to search for patterns and similarities. See appendix C, for complete interview protocol.

Fifteen interviews were conducted, each lasting, on average, an hour and twenty minutes. Each interview yielded six to eight stories, on average. The majority of stories were related to the interviewee's time while serving within a SOF unit or in support of a SOF unit. Some stories dated as far back as the interviewee's time of service within a conventional unit, before his time in SOF.

Conducting interviews in English with native English speakers was not an easy task for an international student. Most interviews were done in collaboration with Professor Frank Barrett, who demonstrated how to run the interviews and helped the author focus on the right questions, using correct ways of asking. Barrett supported the author not only in the preparation, but also in the conduct and subsequent analysis of interviews.

The diversity of the interviewees, together with their candor, brought up a variety of stories. The majority of the stories were their own, though some were retellings of someone else's. The excellent quality and content of the stories was due to the interviewees' considerable experience, openness, and honesty. This willingness to trust may be attributed to identification with the author's similar military background and experiences in the fields of operation.

The interview sample did not contain any international officers. The stories were told from the American perspective, and when these covered any allied forces, it was due to their common experience or operating together.

Regarding the number of interviewees, an effort was made to strike a balance proportionate to the size of the different units within a U.S. SOF. Consequently, eight U.S. Army Special Forces officers, three U.S. Navy SEAL officers, one civil-affairs officer, one PSYOP officer, one U.S. Air Force SOF pilot, and one U.S. Army military

intelligence officer were interviewed.¹⁶⁸ These students represented three cohorts of DA department students at NPS during the same period.

B. SURVEY RESULTS

Out of ten sets of questions addressing ten component variables, four sets yielded statistically significant differences among the components. These sets were framing and reframing, learning infrastructure, organizing to execute, and selection of personnel.

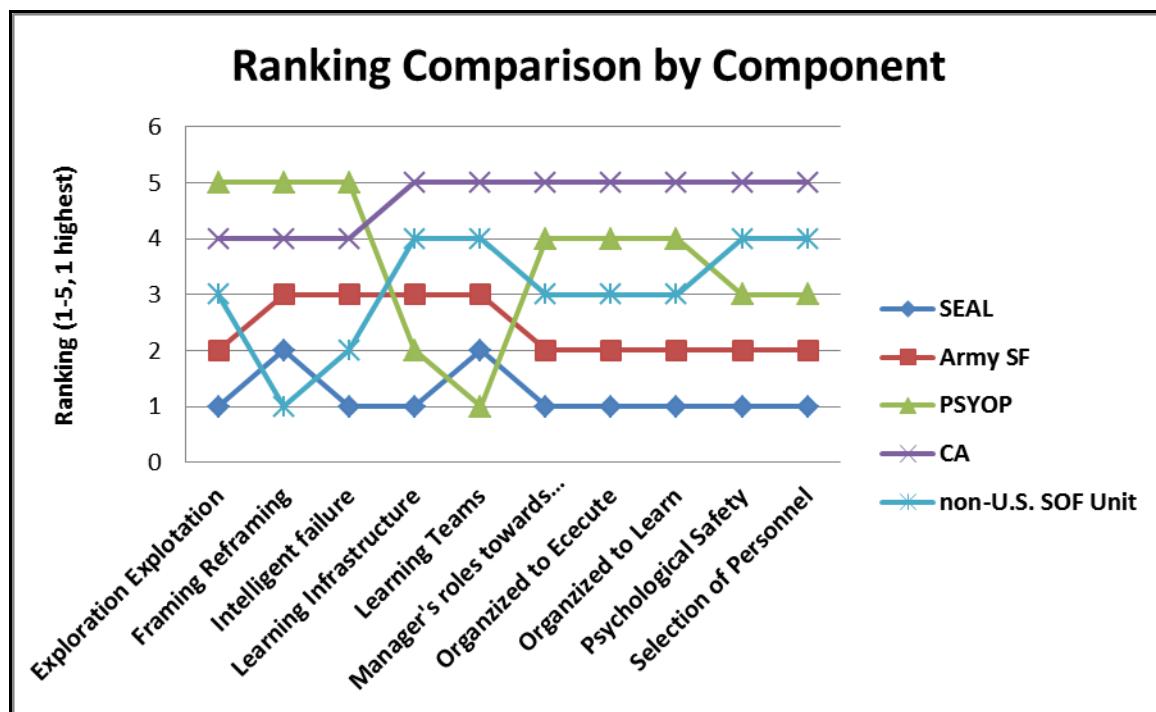


Figure 6. Ranking comparison by component

As shown in Figure 4, comparing the results (one-way analysis of variance) produced a fairly consistent ranking of mean scores by organization: 1-SEALs, 2-Army SF, 3-non-U.S. SOF Unit, 4-PSYOP, 5-CA. A closer look reveals that this pattern is occasionally disrupted.

¹⁶⁸ The U.S. Army Military Intelligence officer had over two decades of service and over one third of his service time spent working within SOF community.

These occasional disruptions can be observed in answers to framing and reframing-related questions, and learning teams and learning-infrastructure-related questions. While the non-U.S. SOF unit stepped up in rank in framing and reframing, PSYOP stepped up in learning teams and learning infrastructure. Based on the author's knowledge of the non-U.S. SOF unit, the assessment is that this relatively young unit is still capable of, and more likely to, frame new hurdles as challenges. Based on interview #9, the high ranking of PSYOP in the use of learning teams and learning infrastructure is created by necessity.¹⁶⁹ While the PSYOP units within the branch are structurally distinguished into two regions, due to the high number of deployments, the members of the branch spend the majority of their time deployed. So the extent of deployments, together with pre-mission training and post-mission requirements, resulted in severe time limitations for the units to actually use their structure (structural channels). Thus PSYOP is forced by conditions to use ad hoc teams to solve issues and tackle organizational challenges.

The almost pattern-like ranking is due to the consistency of the answers provided. One of the obvious possible explanations is that there really is a degree of difference among SOF branches and units, and the difference is consistent across many learning-organization domains. However, due to the limited sample size, this conclusion can safely be reached only if a larger survey is fielded and confirms these results. Such a survey would ideally consider whole-unit-sized samples. For this thesis, at least, those statistically significant can be elaborated on.

Comparing means (outcomes of the one-way analysis of variance) directly provides additional insights.

¹⁶⁹ Interview #9, was conducted with an Army Officer who is currently a student at NPS who came from serving in PSYOP branch, and conducted multiple deployments to Central Asia and Latin America,

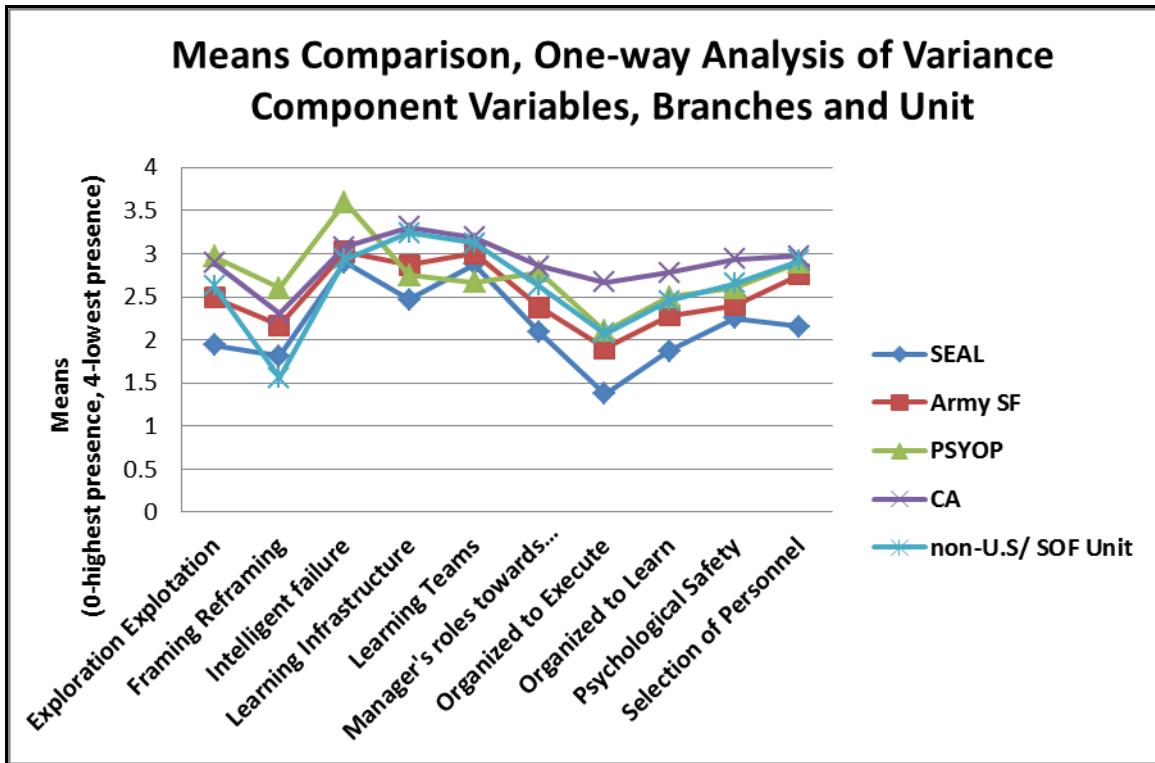


Figure 7. Direct comparison of mean responses by component

As depicted in Figure 7, as pertained to certain structural and procedural elements, the span of answers yielded varied results. Answers to other elements produced very similar responses across the pool of respondents—for example, the comparison of results related to intelligent failure, learning teams, psychological safety and selection of personnel showed very little difference by component. Additionally, in the case of intelligent failure, when the one subset that differed most (PSYOP, mean=higher value than others) is taken out, all the other subsets have means within 0.1 (one decimal) of the average. For learning teams, taking similar steps, the largest difference of mean is 0.16, and for psychological safety and selection are 0.22 and 0.09. In other words, comparison of some of the elements yielded very similar results.

In relation to intelligent failure, and with the exception of the PSYOP respondents who yielded even worse results than other subsets, all other results were very close. In other words, failure is not too much embraced, even in when outcomes are uncertain. This can be caused by a focus on execution, rather than learning, which may be a result

of the high operational tempo and frequent deployments of the last decade. But since the causes were not examined in the survey, this is more speculation than a result grounded in data.

The questions related to use of learning teams showed, that with the exception of PSYOP, the use of the learning teams is not made to a greater extent.

Questions related to psychological safety, though least related to each other in comparison with the other three elements mentioned here, again showed some similarity. Without the CA, who produced the highest response value, the results are close to average—neither strongly supportive, nor against—showing that within the survey sample, to speak up openly and express one's opinion may not be the most common thing. However, for sharing ideas and insights, psychological safety is one of the most important elements an organization need, so this might be an area to examine further.

The last area where analysis of the subsets produced very similar results was selection. Selection in relation to organizational learning, where the differences among subsets were statistically significant, showed that with the exception of SEALs, the responding entities approach selection in pretty much the same way. The results also showed that the SEAL approach to selection is considerably more likely to produce people supportive of organizational learning.

Discussion as to why the results are similar in some cases and dissimilar in others would be speculation. Without gathering data aimed at these causes, the best possible approach is to ask questions or draw possible hypothesis.

Possible hypothesis:

- Selection for SEALs (BUDs) is more prone to select individuals supportive of organizational learning.
- Larger size of the branch influences negatively the ability to learn as an organization.

1. Conclusions from SOF as a Learning Organization survey

Some branches and units are more prone to learn as organizations than others; that is, there is a degree of difference in organizational learning among the components. The survey results yielded a fairly consistent ranking across the ten elements supportive to organizational learning. That ranking is: 1-SEALs, 2-Army SF, 3-non-U.S. SOF unit, 4-PSYOP, 5-CA.

Based on these results, it seems that the selection process for SEALs is more supportive to organizational learning. While the rest showed fairly similar results, the SEAL process is more likely to produce officers and non-commissioned officers who are suited for and supportive of organizational learning.

There are four underutilized areas of elements supportive to organizational learning. When focusing on improvements in organizational learning, improvement in these areas, or changing the approaches that contribute to this underutilization, might be the first thing to look at. These areas are: intelligent failure, learning teams, psychological safety, and learning infrastructure.

C. INTERVIEW RESULTS

1. Overview

Analysis of the interviews was conducted with the aim of identifying recurrent themes common to members of the SOF community across a variety of services. The criteria for the themes were as follows:

- Themes related to organizational learning, with some impact on organizational learning
- Presence in multiple interviews, ideally in interviews with members from more than one service
- Occurrence where both positive and negative connotations of outcomes took place

The interviews started with the solicitation of some brief demographic information, to gain an initial knowledge of the interviewee's background and set up the context for initial and follow-up questions. Subsequent questions solicited stories relating to situations that allowed for new insight or knowledge, and further spreading and implementation of the same. Each of the fifteen interviewees provided between six and eight stories, on average. These stories were coded, and ten reoccurring themes were identified.

The themes are introduced, together with their justification for inclusion. Each justification is supported by paraphrased excerpts from stories produced during the interviews. The first seven themes are related to gaining new insights, information, and knowledge. The last three themes are related to implementing new insights.

2. Challenges

Before describing the learning themes, it is appropriate to summarize the kinds of challenges that SOF officers often face. Describing these challenges helps us understand the complexity of the situations SOF officers and non-commissioned officers often face.

a. Tacit, Practical Knowledge

The decision-making situations that SOF members face are often very complex. They require responses to emergent problems and contingencies without the benefit of the clear directions, goals, planning, or rules that are sometimes found in lessons-learned documents. In these complicated situations, SOF officers need to improvise and respond, on the spot, to ad hoc, ill-formulated, or ambiguous problems. Under conditions of radical uncertainty, actors rarely have the time or resources to analyze or create adequate predictive models of ends-oriented action. Actors are more likely to experiment and move quickly without the benefit of *a priori* rules. The kind of knowledge needed is rarely explicit theoretical knowledge, although a degree of this kind of knowledge is certainly helpful. Rather, it is skillful, practical knowledge—an embodied awareness of how to respond as contextual and situational cues warrant.

One SOF operator described his first arrival at a firebase, depicting what it means to be an experienced person in this situation. When he arrived on the base, the others had been there a year and were combat-seasoned fighters. He realized that the others had a “know-how” that he did not have, and that they could see contextual cues he could not yet see.

I could see right away that they were different. They had a different mentality. They were more alert, although seemed to be laid back, but the way they carried themselves, one could see they were always ready for a fight. By that time they knew how business is done. Myself and my guys were still green. As we went to our first combat patrol, being a new guy you’re only concerned with enemy threat. But the seasoned guy could see everything. We were heads on a swivel, but we did not really see anything. (#2, Army)

His first patrols were learning experiences. He had to learn what to notice. He reported:

We had an uneventful first patrol; we saw how they operate, how they establish check points, how they function day to day. We also met some influential locals. (#2, Army)

When he returned from these early patrols, he learned how to embed with an ODA that was already there. He learned by watching the way the experienced SOF operators did their work and how they filled sitreps. Within a short time, he became more comfortable and became acquainted with this environment:

As a team, once it was our team and our fire base I never felt there was anything we couldn’t accomplish. I never felt completely unprepared. (#2, Army)

The question is, how do these SOF operators advance from the point of noticing that experienced people see, act, and think differently to the point where they also see, act, and think differently and feel completely prepared. This is the question this thesis seeks to address.

b. Collaboration

One of the most difficult challenges that emerged was collaborating with groups outside one's own team. Several of the research participants mentioned the challenge of having to collaborate with groups such as the Afghan national police, the Afghan national army, local tribal elders and informal leaders, allied conventional forces, allied international forces, state department representatives, and the Iraqi police. They were usually not trained to work with parties who have different values, goals, time horizons, and skills. The SOF officers we interviewed had to negotiate and collaborate with several stakeholders and continually assess whether these stakeholders were reliable partners who would contribute to the mission: Afghan forces, Provincial Reconstruction Teams (PRTs), conventional forces, allies, civilians. Creating relationships with locals was a key task, because it was through these relationships that the SOF officers gained credibility and the trust of the local people, and sometimes even learned about the presence of enemy forces in the area. If they could establish good working relationships with the locals, they might become informants who would lead to important intelligence regarding the location of enemies. The challenge of collaboration with PRTs was in coordinating common efforts within diverse sets of missions and with limited mutual understanding. In general, the challenges of collaborating with these groups were "new" challenges, in that these were not the kind of tasks that SOF officers are necessarily conditioned for. However, each research participant struggled to find innovative ways to work with these various groups, and some were more successful than others. Often these innovations were small experiments that expanded into wider strategies, and sometimes the understanding came after the opportunity to collaborate was gone.

c. Bureaucratic Chain of Command

Another challenge officers and NCOs face is direction from the bureaucratic chain of command, which often seems unaware of the situation on the ground. The SOF officers have to find a way to navigate through the policy mandates and political reality of the situation, the priorities of higher headquarters, and priorities on the ground as they emerge. These are often in conflict, and the officers have to learn how

to balance them and make appropriate decisions. They have to learn to work within bureaucratic and legalistic constraints that disrupt their ability to accomplish their assumed mission, often leading to frustration. One of the interviewees described how, after a successful operation, an IED emplacer got detained. Within a short period, this person got transferred to a detention facility in Bagram and the team never heard of him again. A similar pattern was related to evidence gained during the SSE phase of an operation. Once the evidence was secured, the team gave it to site exploitation specialists. The team never heard from the exploitation team or got information about the evidence. These are but two examples of information, gained at some risk, that were automatically underutilized due to the larger system.

d. Limited Transfer of Knowledge

Another challenge SOF officers face is the limited transfer of knowledge. Many times, hard-won knowledge gets misplaced, stops somewhere, or, for various reasons, does not get transferred. As a result, people facing similar situations need to come up with a solution to a problem that has already been dealt with, but the data on successful and unsuccessful solutions is unavailable. This waste of information prolongs the time needed to solve the problem, and for observers, may create the illusion of an infinite chain of trying the same wrong approaches again and again. For one observer, it seems a waste of time; for others, it lowers the credibility of the problem solver. Many officers described this problem. Some of the examples were futile attempts to locate files on a certain country while preparing to go there to conduct a JCET and be relevant to previous efforts; too much focus on successful examples of lessons learned and lack of balance with those which were unsuccessful; and SODARS that failed to reach the team prior to deployment. This challenge, together with the limitations embedded in the use of written forms for transfer of knowledge, put SOF officers and non-commissioned officers into the position where they had to retry what was tried before, without knowing what did and what did not work.

e. Direct Action Focus

There are many reasons the direct approach to achievement of mission objectives seems more appropriate on many occasions. Some possibilities are the easy metrics of killed and captured, instead of influence gained and governance improved. Others might be the reasons people sign up for SOF in the first place: the recruitment tools that attract by pictures and videos of snipers, HALO jumpers, operators fighting with highly tuned up equipment, or the wider public's knowledge limited to numbers of losses on both sides. The focus within training is a self-inflicted limitation, by which it is much easier and more attractive to go out to the range and shoot or to visit a driving school and drive, which are certainly more attractive, and possibly more accessible, than to spend time in language school or learn about governance. And yet, the environment of the current conflict needs a more indirect approach. Fortunately, the interviewees noticed some recent attempts to meet this problem, though these attempts were taking place ten years into a war in Afghanistan. Many interviewees mentioned the presence of this challenge, citing commanders from multiple levels focused on capture/kill metrics, operators focusing on direct actions and omitting, or even refusing to conduct, engagements with local representatives and the population, and deployment preparation that covered range sessions and direct-action missions but not key-leader engagements and gaining the support of local governance. Focusing on direct skills inherently limits the pursuit of indirect skills, and this is equally true when it comes to information, knowledge seeking, training, and preparation, as well as execution while deployed.

f. Limited Support

The external unit support to deployed SOF units is generally of a high standard. Locally the case may be slightly different. Multiple interviewees mentioned situations when they were forced to come up with a solution because of lack of air support, inadequate or missing intelligence, low numbers of troops, lack of experience captured from their current location, or limited financial resources, which limits the acquisition of equipment. These conditions can be perceived as a constituent of the conflict environment. If that is the case, should not the solutions to these inadequacies be

part of a common toolbox given to SOF operators and leaders? Should not these tools be handed over to them during training, conditioning, and experience sharing? The need to come up with innovative solutions testifies that such transfer did not take place to the full extent possible. Examples of limited support ranged from inability to infiltrate forces by air assets (in one instance, since the parachute option was deemed *not viable*, a team was forced to drive through IED-rich roads many times without ever reaching the target village) to the lack of intelligence from an area and nonexistent support's leading to a completely new concept of the mission's conduct. To believe that support is always readily available is as naïve as to believe that lack of support does not hurt the mission.

g. *Lack of Trust*

Sharing insights, information, and knowledge is enabled by trust. When distrust is present, it may limit the transfer of knowledge and information. A lack of trust may only be perceived, but it still can impose limitations. One of the interviewees mentioned that the reason certain modes of deployment or mission solutions were not approved was lack of trust. In a majority of examples of cooperation with local forces, i.e. the ANA or ANP, the way the mission was conducted was to tell the forces to be ready in thirty minutes without giving them the information well ahead of time, or clear directions on what and where the objectives of the mission were. But as depicted by a story in which knowledge of the local forces led to a change of vehicles used in the area (in order to counter an IED threat), some insights are relayed by the local people only. Another example of trust-related issues was described on multiple occasions, when deployed team members did some adjustments, i.e. to vehicles, etc., and the superior commander had to come to see and experience the local conditions; the mere message or sitrep from the subordinate commander did not make the cut. Examples related to trust were frequent, and the consequences of these ranged from delays to prevention.

3. Themes

Ten prominent themes emerged from the interviews. These themes are listed, described, and supported by paraphrasing the relevant portions. Paraphrasing

rather than transcribing was used to assure confidentiality. Confidentiality was important both to encourage openness during the interviews and to shield speakers from being held to account for their statements.

Theme 1 - Sharing knowledge through written reports and standardized formats is important, but not sufficient for understanding complexity and emerging challenges that are not anticipated.

For sharing knowledge and insights, the military uses many different formats, e.g., after-action reports, SODARS, and situational reports. For successful knowledge transfer, these tools have many flaws that limit their likelihood of success. Also, sometimes these reports may not be readily accessible at the crucial time they are needed.

Justification

The majority of those interviewed mentioned that the transfer of knowledge and experience was hampered by factors limiting the overall utility of formats and reports. One problem is that it takes time and motivation to write a full and comprehensive report that provides a coherent picture of a complex event. Further, these reports cannot capture the contextual details and unique challenges that emerge as situations change. Reports can only convey a sense of what happened previously. This does not mean that reports are not useful. They are very useful for capturing a history and alerting SOF officers to contextual cues in a particular area—the nature of the local terrain, the occasional presence of high-value targets, the personal proclivities of village leaders, governors, and police chiefs, and the skill level of Afghan allies, etc. This information is important. One of the difficulties in relying on reports for learning is that people are not always motivated to sit down and write reports for anonymous successors to read. According to the interviewees, several innovative, proven practices were probably not passed on to future teams because of the rapid tempo of day-to-day patrols and fighting and the scarcity of time to sit, reflect, and articulate lessons learned.

Quality of reports is largely driven by human factor. Some people take their time and write these reports; while others perceive it as not as cool thing to do, for

typing is for nerds. Others do leave the report out to the last moment before the end of deployment, and when filling it out the report becomes a matter of filling the paper somehow, more than to provide a comprehensive sum of knowledge. So it's likely that important details never get conveyed. The reasons are the amount of time and effort to put together a large sum of words, and the considerable time spent while writing, as oppose to doing something else, possibly more interesting and urgent. Once I was looking for reports on a certain African country, and even after few years of experience in this country, the reports I found were due to their poor quality not useful for my deployment. (# 15, Army)

Another reason for the limited utility of transferring knowledge via written formats and reports is that the recipient needs to take time to read them; and once these reports and formats become of a limited availability, the transfer has stopped.

Prior to deployment to an African country, I was looking for reports written by another ODA some two years back. I failed to locate them within the system designed for sharing these reports. Later on, while I served at a different position within the same unit, and when one of the former members working on the database returned to download the reports, he showed us that these reports were saved to a folder nobody could find. (# 15, Army)

In a system largely dependent on the circulation of written reports, it is perceived as unsafe to memorialize information that is negative in nature. Learning from mistakes is important, and if the mistakes are not communicated or shared, people are doomed to repeat them. But when sharing mistakes is expected to have bad consequences for one's reputation or career, the probability of doing so is low.

To go through the AARs and find somebody's statement acknowledging he made a mistake is a challenging task. Nobody is prepared to write that he made a stupid mistake. Once the information gets written and goes out, nobody is prepared to be super honest. (#7, Navy)

In general, when choosing which stories to share in a written report, positive stories are shared more often than negative.

We don't select the important stories well; people tend to pick what worked. Nobody wants to admit he screwed up. And it is hard to enforce that. Not everybody is prepared to do it, although a lot of people do. (#4, Army)

Truthful reporting is enabled by trust; if the perceived trust is low, the reporting might be skewed:

In general, due to the limitations imposed upon us while fulfilling missions, team leaders did not feel trusted. The universal feel was that we have to be attached to the radio all the time and be ready to describe the situation at any time. Under such conditions it might be even convenient to tell the commander what he wants to hear. (#3, Army)

Written reports inevitably lack sufficient context and detail. Answers to every possible question are not available. Each person interprets the information slightly differently, and only the possibility of questioning allows for making sense and fully understanding the data.

The need to discuss the issues is because people have questions. The interaction, emotions, and need to articulate trigger thinking. Each person asks different questions, and without answers, they may be limited in understanding. The written piece is a minimum, but that only lets everybody know that something happened. For understanding, they need to stop and ask. (#8, Air Force)

Due to high workload, report writing is not a high priority. Under deployment conditions, writing a coherent report receives less attention and time than it really deserves. Inadequate reports are the result.

Some people are too busy to do the reports properly, when asked to perform twenty different things; one does the five that do not get him into trouble. Reports do belong to the other fifteen. There is a need to assure quality of reports. (#15, Army)

Not all reports reach their recipients. A large volume of papers circulating through an organization is hard to keep exact track of. With people constantly moving as well, the likelihood of a paper reaching its intended recipient is small.

Regardless of the level of detail of reports, in our community the knowledge is transferred through talking. At the end of deployment, each team is tasked to write a detailed report on everything the team did during the deployment. The report, SODARS, should contain all the knowledge, all the operations, all the important names in the area, but very rarely that report gets pushed out to the team coming in. Afghanistan is a bit better since we can leave the report at the place, but for the missions without the constant presence, we have to find the last teams that have been there and physically get into contact with them. System seems well thought through, but the experience is different. (#2, Army)

The system of written reports is well thought out. But in the context of all moving parts—other tasks and people—on many occasions, the person who needs the data most may fail to receive it. To write a comprehensive report is difficult. Without enforcing standards of quality and giving it the appropriate attention, report writing may get less attention than it needs. For people to admit a mistake, they must feel safe. If they perceive that their report will be sent out into the larger system without any context or control, they will be hesitant to detail their failures. Under such conditions, the system of written reports and formats may fall short of its potential.

Theme 2 - Discovering insight through questioning and storytelling.

As one SOF officer noted, you can learn by reading reports, but the most important learning comes from storytelling. This often happens by serendipity. In several of the interviews, participants discovered insights by questioning each other, including Afghan allies, and sharing stories. In fact, “hanging out” and discussing a situation often yielded important insights that led to new approaches. These novel approaches not only led to successful innovation, but could help build collaborative relationships.

Questioning and discussing support better understanding, transfer of knowledge, and learning.

After every flight we debrief, so after any mission we sit for about 30 minutes and we talk about it. Whether it is a successful or unsuccessful mission, we sit down and try to throw spears and find out what went wrong, what went right, what needs to be changed and what is a good practice. So sitting around with mature aviators you really are able to learn from each other. And those experienced ones can put the years of flying and doing behind that discussion. (#8, Air Force)

On my company we had meetings on a one or two-week basis. We would meet with the leadership and discuss all what happened that week. We would go over the things that popped up, what was new and what we learned. We discussed and then disseminated that all. There would be company and detachments leadership and we would discuss everything. But that was within the company. (#14, Army)

To understand the task and environment, reading written documents, experiencing the setting, and observing predecessors while performing daily tasks still leaves questions unanswered.

We had a very good handover. The previous team took us on patrol with them, made us meet couple of influential local people. But as we were new ones there and they were experienced in the area, I felt like fish out of water. A lot of time was spent by sitting around and telling stories, but their stories happened down the road and we had nothing. Later on they let us go through their CONOPs, orders; we could see how they did their day-to-day operations. And after that we just sat behind the closed door and had a chance to ask about just anything, no question was a dumb question and they did accommodate that. (#2, Army)

Insight through serendipity may emerge from hanging out and observing and paying attention to minor or seemingly irrelevant details. Insight can be also gained by paying attention to ad hoc conversations among the coalition partners.

As my team was new to the area and Afghanistan, the first couple of weeks in the firebase we spent nights at the OPs manned by ANA. Every night the ANA soldiers played a game where the winner was the one who could pick the make and model of the car the quickest. There was always a discussion over Corollas, and Hiluxes, but a

Humvee was easy and quick. They would even tell the difference between what convoy was out there. When we were there, we laughed and sometimes played the game along. But later, when we thought about the RC IED and the precision of the timing it gets to trigger it, we reflected upon it. Soon after we switched over and started to use Hiluxes only. (#2, Army)

Sometimes the insight gets revealed by paying attention to one's own as well as enemy forces.

I used to be really angry when soldiers were saying that enemies were cowards for using IEDs and not fighting directly. I started to realize that the CAS was our IED to them. Our interpreters heard them over radio saying that we were cowards for bringing in CAS. And the engagements were always with just a few guys and at the long distance. And I realized I am a guy in a multimillion truck with all the stuff attached to it and all the high-tech support available and all I am facing are just a few guys with AKs and RPGs. It was just a basic stuff. And we changed our tactics after that. (#3, Army)

Questioning and storytelling impart experience, knowledge and insights, and allow for discovering new ideas. For these results, interaction is necessary.

Theme 3 - Sharing knowledge is effectively done through open and frank discussion.

Open discussion promotes shared knowledge and insights. This involves two separate impulses. On the part of the learner, it involves restless curiosity and continual questioning. On the part of the speaker, there must be motivation to share his unique, idiosyncratic experience. Being together is not enough; both parties must want to share. There are many reasons that sharing takes place through discussion. One is that a discussion is a chance to ask questions and thus improve understanding; another is that within a discussion, there is no fear of mishandling or misplacing information. Equally important, there is less chance of information's being used against an individual, especially when the information includes a mistake or bad decision.

Justification

Knowledge sharing generally involves two parties: one with knowledge and the will to share it, and one without knowledge who is able to admit it, and willing to listen to the insights that make it enriched for the missing knowledge at the same time.

No intermediary medium allows for open and frank sharing.

People automatically look for bad things. So it is natural that nobody is willing to expose himself to any more bad press than is necessary. The time to really learn is a good hot wash that takes place within the unit. (#7, Navy)

If the document is likely to leave the immediate confines of the unit, people may feel less safe to input certain information. The fear of losing control over information limits the quality and quantity of information in a document. Officers know that a document takes on a life of its own and a story that reports about less-than-adequate results might later create unwanted consequences.

When the information is planned to leave the immediate circle, nobody is going to be really open. Nobody will really show his cards on where he made a mistake. You may have an excellent relationship with your superior, but once the statement goes in print, the perceived safety is gone. There is no knowledge of how the information is going to be handled. It may be used against you. (#7, Navy)

When confronted (presented) by new information, one may need to ask questions. Sometimes these questions may be related to context; other times, to a thought process. If these questions go unanswered, learning may not take place. Questions are an opportunity to learn both for the questioner and questioned.

With written files, there is no way of asking questions, nobody can ask why did you do this, or what did you think at that time. The interaction is always better than written paper. (#8, Air Force)

Sharing occurs among those who have experienced common hardships. Usually, there are no common hardships with strangers or new people. When people do share hardships, they know it is in their mutual interest to share insights openly.

For more experienced people, it is easier to gain trust. The younger ones need to be brought in by the older ones who already trust them. The best information comes out after the mission; those people who have shared the life threat will share the information that keeps them alive. (#7, Navy)

People learn by listening, but when they can ask questions, they and the speaker educate each other.

From my time as an instructor, I do remember that every person asks different questions, sometimes the question triggers new thoughts in the one who responds. The person can actually teach you something by asking the question. (#8, Air Force)

Theme 4 - Learning often requires crossing presumed boundaries.

Some units are more skillful at crossing these presumed boundaries. Those units that exercise this ability to a greater level are more successful in learning and innovating. Group boundaries are always present and cannot be ignored. As they are always present, the variation in successful transfer is caused by the degree a unit or a person is able to successfully work across those boundaries. Boundaries have diverse causes, some bureaucratic, and others structural, commercial, or financial, and they differ in the difficulty it takes to overcome them.

Justification

Implementing a solution developed outside of one's own unit, or outside the military organization, or in cooperation with an outside entity, may involve barriers that are unrelated to the problem itself, but to the boundaries between the subjects.

Different units fulfill different tasks; due to boundaries, the possibility of cooperation may not be perceived initially. Consequently, learning may be delayed.

Working along the PRT was completely new for me. They would have a lot of money and were judged based on how many projects they managed to complete. But we did not coordinate our effort with them well enough. In the ideal world, we would advise them on security issues in the area, and also on which village deserves support

and projects and which one does not. The fault of missed coordination is obviously on both sides, but for us we did not really see the value of coordination until very late. If we coordinated better, we would get more influence in the area. (#2, Army)

In tapping the knowledge or expertise of civilian companies, crossing bureaucratic boundaries may be required.

During the development of particular software used in support of planning our missions, we had to tackle multiple challenges. The knowledge was out there, all we had to do was to break through some bureaucratic barriers between the government and agencies. Others were commercial in nature and were related to licensing, contracts, and using commercial software on secret computers. (#6, Navy)

Boundaries between conventional units and SOFs may lower mutual awareness, and performing missions together may become more difficult.

During one of the missions, I used an infantry company to set up a blocking position for us. While my team was pursuing the larger enemy group, the conventional unit saw some movement above them on the ridge line. They send single vehicle to check it out and the vehicle suffered an RPG hit. After that the company commander lost control over his unit. Once my team got back, I spread my guys across the company to help to lead some of the minor elements. Although I was aware that this was their first deployment, I learned to make better assessment of forces available. (#4, Army)

Other boundaries are structural. Failing to acknowledge the quality and experience of others may prevent learning and sharing of experience.

When it comes to learning from each other, sometimes the structural boundaries get in the way of it. If there are more experienced units, but my commander tells me that these are the same people only with bigger budget, it may become challenging. (#7, Navy)

An example of financial boundaries can be observed in hiring preferences when bringing in a civilian provider of expert training.

Although we believe that there is a certain driving school in Arizona that provides for an unmatched quality of training, we may be forced to use the services of a cheaper one in Northern Carolina. When deciding on which one to send troops to, if the cheaper one advertises the same level of training, and the government saves on lodging, these become the basis for decision, regardless of the real quality we know. (#6, Navy)

Theme 5 - New insights and innovative solutions are often generated outside of the team or unit.

Not all good ideas are initiated from within. Units (platoons and teams) often use knowledge or insight from outside. When communication and collaboration reach outside a unit's boundaries, ideas successfully implemented elsewhere can be used. While these ideas may need some adjustment to local conditions or context, using other people's ideas may be faster and more effective than building knowledge on one's own. When a unit performs in isolation, its limited ability to reach out can restrict learning and innovation.

Justification

A SOF unit in general is trained to perform a wide variety of tasks. For the amount of tasks to train for, not always the level of knowledge and skills within the unit reach a level of skills present within the organization with similar, but narrower task span.

Although a SOF unit is trained in SSE, exposure to much more detailed and sophisticated ways of conducting activities can yield deeper understanding and knowledge of the enemy.

One of the agencies' members was collocated with my ODA. After sharing our approach to conducting SSE, they offered their way of doing it. Their way was clearly superior to ours, and we ended up using them as in-house training force for this expertise. By utilizing their approach, we were able not only to put more pieces together, but we were also able to get some usable information out of it. (#2, Army)

Some security sectors traditionally specialize in certain areas of expertise. While this is driven by their uses and needs, expanding a unit's skillset by reaching out to these sectors may offer valuable insights and faster learning.

Within our unit, we used dogs since a long time ago. The development of the training for the specifics of indoor use, and the development of new TTPs, equipment, and infrastructure was effectively done with the cooperation of K-9 unit. (#6, Navy)

External cooperation, grounded in the system, can bring continuous innovation and learning. When there is a need for more than a one-time solution, properly established channels help bring in, evaluate, and test new ideas.

Our unit had a research and development section, and they were continuously communicating with people outside of the military, the commercial companies. While utilizing the proper channels, they were able to continually consider and to test new parts or new capabilities added to the airframe. Some of the airframes and the crews never stopped evolving. So most of the learning took place at home station, but some of the insights only surfaced during the operational use. (#8, Air Force)

Insights obtained from outside may be aimed at local, specific issues. Even when implemented in different situational contexts, they may prove useful and effective.

The idea was mentioned in a SITREP of another ODA. Their situation was different from ours, since they were trying to address a specific problem of being targeted by snipers and mortars, and they also developed a specific plan connected to the idea. But we immediately thought about the idea, and liked it. We started to use the idea, and the value of it got proven many times. (#3, Army)

Theme 6 - Innovation is triggered by an inadequacy or deficiency in the unit.

The preferred understanding of how innovations are initiated is that, within a SOF, they happen through planned events. But during the interviews, a pattern emerged that showed that innovation is often triggered by the inadequacy or deficiency of

a unit. These inadequacies may provide focus and direction, which are key ingredients for successful innovation. But this theme could also mean that there is wide room for improvement in planned innovation.

Justification

Military working dogs have been used before; they have had specific tasks, for example, sniffing out explosives, weapons, or drugs. Their wider use with troops fighting in buildings was triggered by a need to lower casualties.

In Iraq, during some heavy fighting over compounds, both our unit and our partnership units were taking a high amount of casualties. The initiation of the idea was the effort to lower the casualties. Over time, one of the things we developed was the use of military working dogs in support of these operations. Their use allowed for better awareness and lowered the risk to both forces and civilians. (#6, Navy)

SOF units are generally smaller than conventional units. Mitigation of situations in which smallness is a disadvantage is one possible approach.

When our coalition partner unit left, we lost a big force. Without that backup, I felt the need to find a solution for a much smaller force. The solution I came up was based on the precise knowledge of timings related to different Taliban groups we were fighting and for the majority of times it worked flawlessly. (#1, Army)

Exercising control over an area is a challenging task, more so for a smaller unit. Identifying and using such leverage was a successfully implemented idea.

One other SOF officer, from whom I overtook the area, told me a story when they had hard time to control the area. In this area, the enemy was very active. And my colleague and his team needed to get into a certain valley. As the area was infested with enemy, it was hard to gain control. His intelligence sergeant learned about the area and he realized the value of lumber which was used by locals to “store” the money into. The insight was that who controls the lumber, controls the valley as well. As the team needed to get into the valley, they shared this insight with commander of Marines company who shared the same firebase with them. Once the Marine commander sent one

of his platoons to “sit on the wood” the team was able to get into the valley and achieve its tactical objective. After the Marine platoon left, the wood disappeared. (#2, Army)

Openness to learning a new task is based on the idea that the performing the task will help the unit that is supported. In a sense, the ability to perform somebody else's task can free the hands of the other unit.

Although it is not our task, we learned how to control other aircraft. It was never meant to be our mission, and not that the ground party was not able to do it either. The idea was to free them to do something else. So we gradually learned how to be tactical air controllers without being ones. And all the guys started to bring up ideas, and we worked on them. It was a process of a gradual improvement. (#8, Air Force)

Theme 7 - Seeking new information is limited if the individual or organization is limited to a narrow set of missions.

Focusing on direct action keeps units from seeking solutions across the board. A direct-action focus limits the span of training, the quest for new information and solutions, and the conduct of missions. The extreme output indirectly caused by such a focus can even be mission refusal.

Justification

Superiors have many ways how to assess the progress of operations within their area of operation. One simple metric is the number of enemy killed. While this is probably useful in a conventional war, within a population-centric conflict such an approach is not so useful.

While advising an ODA commander on desired outcome of operation, where ODA captain wanted to go after a certain low level individual, as a senior person I tried to get across the point that an indirect focus in area is required and low level individual has not so much of a value, even if captured. The team commander's motivation was to reach a high number of operations. This metrics was driven by battalion commander, who wanted to reach the total of X-hundred operations during the deployment cycle. (#14, Army)

In extreme cases, refusal to operate per given guidance does occur. The problem could be triggered by the unit's preparation for a different mission set. The given task may require an innovative approach, either due to novelty embedded (i.e. a really new task) or a different focus in pre-deployment training and preparation.

After the key leaders from the platoon were reassigned to do exactly the expected task (direct action type of mission), the remaining part of platoon could not handle the change, and carried on based on their expectations (direct action) and not as per given task (long-range desert patrol, reconnaissance). For them to adjust to the task given was impossible and they kept doing meaningless raids. (#10, Navy)

Interviewees mentioned that prior to their deployment, the training was focused mostly on kinetic operations, or direct-action missions.

Training was mostly focused on infantry battle drills and huge emphasize was made on the use of CAS. That was the focus of it, once in battle to be able to call CAS and hold till it comes. In Afghanistan, the situation and operational needs did not reflect those priorities (the security situation was not that dire and fighting skills do not help rebuild the governance); and we as an ODA were not capable of the task ahead of us. After time, for next deployments, the shift from direct skills towards the indirect ones took place and we spent less time shooting and driving and more time learning to understand the governance. (#3, Army)

Our pre-mission training was shooting, flying in helicopters, and direct-action-related activities. There were no radios (for broadcasting training) and we only practiced with loudspeakers. Lack of understanding to our task skewed training towards ranges and shooting. So the learning really came after we got deployed. (#9, Army)

Theme 8 – The larger the unit, the less it is able to innovate and learn.

With growing size, to innovate and learn becomes harder. It is easier to prototype and test on a smaller scale (because it is cheaper), there is a higher concentration of high-quality people (it is easier to staff an elite force of a hundred men

than of ten thousand), and there tends to be tighter bonds and higher trust (psychological safety) among a smaller force.

Justification

In comparison to large conventional units, the SOF units are small. And some SOF units are even smaller. For them it is easier to innovate, due to freedom from restrictions inflicted by the size of a large unit.

SOF units are expected to innovate are smaller in size than the rest; they are given more freedom to do it, since to innovate is much easier on a smaller scale, than on the whole scale of government contracting. For larger SOF units it is harder, but it is even harder for the conventional units. (#6, Navy)

With higher-tier units, better support is available, making innovation easier.

Similarly, the size of support structure, the higher within the SOF organization, the more support structure there is available. With higher tier unit, more supporting experts there are working per operator. (#6, Navy)

Larger units require large support. But the pool of high quality people is not endless. Thus, larger units need to rely on lower-quality personnel to support them.

With growing size, the number of people supporting grows as well; as these numbers are not endless (endless availability of such people), at certain point the organization is forced to rely on less motivated, or less skillful individuals. Hawaii tends to be more expensive and the schools are not as good there, local citizens live a more relaxed lifestyle. For us, it is hard to get people to move there, unless they want to live Hawaiian style. Consequently, we have to rely on less motivated (thus less skilled and less hardworking people) over there. (#6, Navy)

Larger units tend to have more complex processes, and with elevated complexity come delays and lowered agility of an organization.

The bigger the organization, the more rigid it tends to be. Similar to startups, they are small, but once they grow, they become more rigid and less innovative. (#7, Navy)

The complexity of internal processes grows with the size of the unit. Growing complexity inflicts more rules and SOPs, and thus a SOF unit becomes more similar to the conventional one.

The bigger the unit, the more conventional it becomes, so with growing size, the less freedom the unit gets. (#6, Navy)

Theme 9 – A delay occurs between the moment of insight and its application.

Although information may be available, between the time a subject is presented with new information and the time it takes to modify actions accordingly, there is a varied delay. Digesting information takes time. Sometimes information may be available, but the understanding comes only in retrospect, after the opportunity to use it is gone.

Justification

Making sense takes time. A person may be too absorbed by other things, or data may be too complex to understand at first exposure. Regardless of the reason, it may take time to completely understand an event. Lack of understanding can be successfully overcome after the opportunity to act is gone.

We did not see the value of coordinating effort with PRT. We viewed our efforts as separate. The understanding that we could do a lot more influence operations through them came much later. Between us and the PRT, there was a lot of missed coordinated effort. (#2, Army)

There is a delay of variable length in using the insights gleaned from previous training.

After three months in Iraq, I realized we did not utilize the Designated Marksmanship Program-trained people as we were supposed to. Instead of that, we just reacted to fire with everything we had. (#3, Army)

Even innovation does not occur from day to day. To be innovative takes time.

We worked very hard over time. It took a considerable time to train the assets, to develop the infrastructure and to field an innovative solution. (#6, Navy)

The delay could be caused by narrowing the focus to certain aspects of a situation or problem. It may be related to a way of conducting daily tasks. To get over this challenging limitation takes time.

We had some other coalition partners attached to us; they were really hard working, but their approval process was very complicated. Due to time restrictions, they were never able to go out on mission with us. Later on we realized they were very knowledgeable in certain areas. Once we started to utilize them based on these skills, we learned a lot from them and they were a great asset. We were five to six months into our rotation prior we started to utilize them to their full potential. (#2, Army)

There can be a long delay between the time the insight or information is presented and the time it is used in training or preparation.

Prior to my deployment in 2007, the vast majority of training was focused on kinetic operations, and we did only one key leader engagement during the preparation. The situation on the ground required the exact opposite; the vast majority of operations conducted were based on indirect approach and key leaders engagements. This misbalance started to reflect in training in 2010. (#10, Navy)

Theme 10 – Useful training is not always applied in combat.

During times other than deployment, individuals, teams, and units take part in a vast array of courses, training events, and exercises. The purpose of these is to broaden their knowledge and skillsets. Often the new knowledge or skills do not get put into practice, because the training may be disconnected from the requirements of the

operational theatre, or disconnected from current experience (as when training is not updated or anchored in present reality). Useful skills may be unattractive or unexciting, causing the focus to shift to more attractive but less-needed skillsets. In the field, a unit may refuse to employ useful, but possibly more risky, approaches, and a prevailing focus on direct skills may be detrimental to indirect skills.

Justification

Without understanding a specific mission and lacking proper equipment, training might focus on skills, but they may not necessarily be the most critical skills. Rather, they are likely to be useful and easy to train.

During the pre-mission training we did some range time, we were flying in helicopters and we practiced some direct action related skills. Since there was no clear insight on what we were supposed to be doing, we spent loads of time on ranges. And since we did not have any radios to practice with, we practiced with loud speakers. (#9, Army)

Some of the skills trained for are part of conventional training. They are useful and might become handy when the opportunity comes, but the perceived risk outweighs the possible benefits they might bring.

Before my second deployment to Afghanistan we were jumping three times a month. Before the deployment, commander said to put in any concept of operation, that nothing will be seen as silly or wrong. And yet, during the time in Afghanistan, because of IED situation I tried to put up a CONOP on going to a certain village where the route was 250 km long and to my knowledge it was the worst IED alley I knew of. Multiple times I tried to submit the CONOP, and it never worked out. From the answer I got the impression that doing something we routinely trained for was much more dangerous than to drive through 250 km long route full of IEDs. (#3, Army)

Although units are trained in wide array of skills, there may be hesitation to put them into practice. One possible explanation is risk aversion.

Our training has an extremely wide span, we get to be trained in a lot of things. I mean we got to train in a very high-profile courses where we learn very high-profile skills. And yet, when it comes to putting the training into practice, the refusal from higher is explained by high risk. But I have never known an SF guy who would be willing to take a suicidal mission. So we have skills, we have motivation, and still most of the times we are told NO. (#3, Army)

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VII. CONCLUSION, AND RECOMMENDATIONS

A. CONCLUSION

This study investigates SOF as a learning organization. Given the diversity among SOF units, this is an ambitious task, not made easier by the slim body of literature related to learning organizations. While there is no universally agreed-upon theory of organizational learning, this study is built on the findings of major scholars in the field.

In Chapter I, Part F, “Framework,” a set of ten component variables is introduced. These variables are described and their substance explained in Chapter II. As these variables differ in their meanings and benefits, they also differ in the way they are put into practice. Five of these variables were identified as procedural and five as structural, i.e., five are present as practices and five are present within the structure of learning organizations.

This study used both quantitative and qualitative methods of analysis. The quantitative analysis consisted primarily of survey research, aimed at identifying the degree to which the ten component variables were present within a typical SOF. This approach resulted in a comparison of branches within U.S. SOFs and a non-U.S. SOF unit from a NATO country. Qualitative data was drawn from interviews that sought to understand how learning within an SOF takes place and how successes and failures to learn occur. This approach provided a deeper appreciation of the unique challenges to learning within the SOF environment and yielded ten prominent themes in regard to organizational learning. Seven themes were related to the acquisition of new information and three to the application of information gained.

The survey and the subsequent analysis of responses yielded multiple results. There is a degree of difference in the ability to learn as an organization among the different SOF subjects, i.e., a higher degree to which the component variables were present. Some of the examined subjects were more prone to, or better conditioned for, organizational learning. For some variables, the examined subjects yielded very similar

results and scored lower than on most other variables. The lack of ability to fail safely, sparse implementation of learning teams, a low degree of psychological safety, and, (with the exception of SEALS), a very similarly focused selection process were variables that yielded a similar degree of presence for all subjects. (These are very good ideas, but the wording is slightly awkward. I think your editor should be able to help here).

The themes that emerged from the interviews were congruent with our expectations based on the literature. Because the sharing of knowledge and insight requires an environment of psychological safety, knowledge is more likely to be exchanged under conditions of open and frank discussion, questioning, and storytelling. Written reports and formats are limited as tools because of their mediocre level of perceived safety, generally poor quality (e.g., context is usually lacking), and the impossibility of asking for clarification and further information. Moreover, documents are cited as unavailable when needed, perhaps lost in the eddy of circulating papers. Finally, it is clear that acquiring new insights requires the ability to cross boundaries and reach beyond the familiar unit. Those units that achieved open discussion and were able to cross bureaucratic and cultural boundaries reported good success in getting or sharing new insights and knowledge, and were more successful in learning as an organization. Other themes that emerged from this research were the assertion that innovation is triggered by inadequacy, that healthy seeking can become limited where there is a narrow focus (i.e. the *blind spots* mentioned by David Garvin), that learning difficulties compound as a unit grows, and that there is a troublesome delay between the gaining of a new insight and its earliest possible implementation.

Thus, here are the answers to the research questions posed in this thesis:

1. *What are the internal and external conditions that facilitate rapid learning and flexible responses in a SOF unit?* Rapid learning is facilitated by an environment of psychological safety and through direct interaction, i.e., open and frank discussion.¹⁷⁰
2. *What internal processes in a SOF unit can be established to facilitate rapid and flexible responses to new information and situations?* Establishing processes that allow

¹⁷⁰ Section discussing psychological safety is located in Chapter II.

safe reporting and creating environments that support open dialogue and discussion are supportive to knowledge gain and transfer.¹⁷¹ Training personnel in collaborative skills and increasing their ability to cross boundaries helps bring in new ideas and insights, especially when the insights originate outside the unit. Conditioning personnel to see failure as a valuable part of learning supports the transfer of knowledge and allows faster and broader learning.¹⁷² The use of temporary learning teams improves knowledge gain and sharing.¹⁷³

Although these outcomes align with the literature on organizational learning, there is a need to recognize their limitations. The research was confined to a narrow pool. The analysis of survey responses was based on 123 respondents from eleven countries—too few to be considered a representative sample of SOFs in general. Similarly, the interviews were conducted with U.S. SOF only, and the number of interviewees was fifteen. Outcomes from this study should not be treated as final answers to the questions raised, but as a starting point for further study on a larger scale with sharper focus.

For any subsequent inquiry based on this study, the approach taken in support of the current research, i.e., the use of two methods was found to offer a balanced outcome. The use of both qualitative and quantitative methods yielded a more rounded result—in that regard, the approach was useful. However, simultaneously employing two methods proved time consuming at best, and the author advises that follow-on research include ample time to assure depth and quality in the results. Two researchers working collaboratively may be a better match for the dimensions of this inquiry. In any case, the author notes that the main advantage of the qualitative method was the depth and details of the insights gained. Both sets of data garnered from the present research contain more

¹⁷¹ The details of possible ways how to implement safe reporting in an organization are covered in Amy Edmondson's study on children hospitals. Amy C. Edmondson, Michael A. Roberto, and Anita Tucker, "Children's Hospital and Clinics (A)," Case 9-302-050 (Boston: Harvard Business School, 2007).

¹⁷² Section discussing intelligent failure is located in Chapter II.

¹⁷³ Section dealing with learning teams is located in Chapter II., for a greater detail the works of David Garvin and Richard Hackman might be useful. Garvin, *Learning in Action: A Guide to Putting the Learning Organization to Work*, Chapter 4, Experience. Richard J. Hackman, *Leading Teams: Setting The Stage For Great Performances* (Boston: Harvard Business School Press, 2002).

information than was utilized in this thesis. The author feels that more recurrent themes can be prised from the interviews, as well as a wider application of statistical analysis of the survey results.

B. RECOMMENDATIONS

This study produced various insights in regard to organizational learning in a SOF. Based on data analysis and acknowledging the limitations of this study, the author makes five recommendations.

1. Create Environment of Psychological Safety

Many of the most important lessons that SOF officers may glean are in the failed experiments of their predecessors. As an officer's experiments yield consequences, it is often the unintended consequences that contribute to the growing tacit knowledge of the protagonist. However, if there is no psychological safety that allows failure, the protagonist cannot pass key insights and wisdom to his successors. Creating an environment of psychological safety is the first and most important step to organizational learning. For people to be able to seek, implement, and share new insights, as well as the results of implementing those insights, they must feel safe. This is especially true when the results are failures and to share the failures might put the protagonist at risk. For successful learning in an organization, learning must be balanced between the exploratory and the exploitative and knowledge must be shared— both insights and good or poor outcomes. People must feel trusted. They must feel that it is not only acceptable, but expected, that they fail; and that they can share their failures without fear, shame, or vulnerability to retribution. Lack of psychological safety may be perceived when innovative solutions are refused or not supported and people are micromanaged, watched too closely, or expected to be strong and successful at all times. Anonymous reporting may be a good start to creating safety within an organization.

2. Make Use of Failures

As explored above, failure is always a possible outcome. Not all failures are bad and allowing persons to fail may be appropriate sometimes. Failures resulting from a planned action, with uncertain outcomes of a modest scale, executed and responded to quickly, and located within a domain familiar enough to learn from, are good failures. Failure should be used as a learning opportunity. Failures need to be shared as much as successes. Repeating a failure may become costly after time; thus they must be reported, so they are clearly seen and the opportunity to learn is grasped.

3. Make Use of Temporary Teams

Since many of the most important lessons are concerned with issues that cross organizational boundaries, using cross-functional learning teams is often better than sticking to the unit structure. Temporary learning teams, properly staffed, are more likely to make use of diverse approaches and experiences, and some of them cross boundaries by their mere existence. Using temporary teams conditions personnel to be comfortable with collaboration and become more skilled at collaborating. More information is shared, especially when *diagonal-slice teams* are used, and efficiencies increase within smaller, temporary teams. Under conditions of psychological safety, such teams may find new insights, ideas, knowledge, and solutions, may balance exploitative and exploratory approaches, and may derive answers from a full spectrum of resources. As the use of temporary teams is quick and effective, these teams may help counter delays. Finally, each participant is likely to see a wider perspective than the confines of his unit and its history.

4. Support Sharing

Sharing knowledge and insight is best done through open discussion. New insights often arrive through storytelling and questioning; therefore, conditions for such discussions must be created. The opportunity to meet is as important as the perceived safety to speak openly. If such conditions occur only within the unit, i.e., the team or platoon, the information is not likely to traverse boundaries. Anonymous forums may be

a possible solution when geographical dispersion makes it difficult for people to meet or if psychological safety cannot be established within the unit. While anonymity supports openness by providing safety, once control is imposed over such forums, the opportunities to learn are lost.

5. Leadership's Role in Creating Psychological Safety: Model and Reward Learning and Innovation

Leaders need to model what it means to learn from unexpected events or from failed experiments. The literature contends, and the findings in this study reaffirm, that this is a core requirement for the creation of psychological safety. Leaders need to overcome status barriers and model for the unit what it means to experience and learn from failure. Further, leaders must recognize that reward and recognition are for reinforcing learning efforts. Open recognition of learning and support for innovative approaches must be made. For example, people asking tough questions need to be appreciated, which promotes openness and sharing. Innovative thinking needs to be supported. Selecting appointees who exhibit innovative thinking or ask tough questions promotes like behavior within the group and supports learning and innovation in the long term. Innovation and learning are not easy, especially in climates that rely on routines. It often takes perceived inadequacy and a high level of dissatisfaction to motivate innovation. Leaders can make an effort to promote to key positions those people who raise hard and challenging points. Managers need to support learning and innovation by recognizing it, i.e., by saying “yes” when opportunities to innovate arise, by creating favorable conditions, and by rewarding these behaviors through recognition and other means.

APPENDIX A. SURVEY INSTRUMENT

SOF as a Learning Organization - questionnaire

You are invited to take a survey for a research study on Organizational Learning within SOF community. Your participation in this survey is voluntary. You will not be penalized in any way or lose any benefits to which you would otherwise be entitled. There are no direct benefits to your person, however, the survey should contribute to the greater knowledge about SOF and shall support SOF innovation.

The survey is designed to provide information to gain insight on what determines and facilitates organizational learning within SOF.

The overall results of the study will be presented in the thesis, SOF as a Learning Organization.

This survey should take about 25 minutes to complete, and I hope for one hundred participants to take part in it. Please note that all survey records and data collected are confidential: individuals who decide to participate will not be identified. Your input is very important. It constitutes part of data gathered from those who were selected to take part. We hope you will choose to participate. However, you are free to stop taking part or skip any questions anytime.

There is a very minimal risk of breach of confidentiality, precautions against breach of confidentiality will be employed. Results of the survey will be used responsibly and protected against release to unauthorized persons; however, there is a minor risk that data collected could be mismanaged.

If you have any questions about this study, please contact either the Principal Investigator, Dr. Kalev I. Sepp, kisepp@nps.edu, or the researcher, LTC David Franta, dfranta@nps.edu. You may also address questions to the Naval Postgraduate School's Institutional Review Board Chair, CAPT John K. Schmidt, (1)-831-656-3864, jkschmidt@nps.edu.

1. We hope you are willing to participate in our study. We value and greatly appreciate your experience and views.

If you are willing to participate, please indicate below.

- I agree to participate in this survey
- I decline to participate in this survey

Part 1

Please, respond to each item in terms of how descriptive it is of your person.

1.1 What country do you serve in?

1.2 What is your service?

1.3 What is your current rank?

1.4 What is your total length of service?

1.5 What is your total length of service with SOF?

1.6 What was your last (current) position within your unit?

1.7 What was your position previous to the last one indicated above?

Part 2

Please, respond to each item in terms of how descriptive is of your work unit.

2.1 New situations (with solution unknown) are communicated as learning opportunity.

2.2 New situations (with unknown solutions) are communicated as a challenge.

3.1 In this unit, when innovations are tested and planned for, failure is perceived as necessary part of trying out.

3.2 In this unit, failure is acknowledged as possible, when outcome is uncertain.

3.3 In this unit, failure is used as a mean to challenge existing assumptions.

Example of this statement is a situation when inability to comply with current procedure leads to reassessment of the procedure itself.

3.4 This unit increases focus on processes rather than on outcomes.

3.5 In this unit, failure is acknowledged as part of learning.

Please, respond to each item in terms of how descriptive is of your work unit.

- 4.1 In this unit, people value new ideas.**
- 4.2 In this unit, people are not afraid to try new methods to improve performance.**
- 4.3 In this unit, people often resist new approaches.**
- 4.4 Frequent experiments searching for new procedures and new approaches to tasks are part of normal activities (business as usual).**
- 4.5 This unit has a formal process for conducting and evaluating experiments and new ideas.**
- 4.6 This unit frequently employs prototypes or simulations when trying out new ideas.**

Please, respond to each item in terms of how descriptive is of your work unit.

5.1 In this unit, it is easy to speak up about what is on your mind.

5.2 If you make a mistake in this unit, it is often held against you.

5.3 People in this unit are comfortable talking about problems and disagreements.

5.4 People in this unit are eager to share information about what doesn't work as well as share information about what does work.

5.5 To be secretive about your intended actions is the best way to get ahead in this unit.

Please, respond to each item in terms of how descriptive is of your work unit.

6.1 My manager(s) invite(s) input from others in discussions.

6.2 My manager(s) acknowledge(s) his/her own limitations with respect to knowledge, information, or expertise.

6.3 My manager(s) ask(s) probing questions.

Example is when asked to provide more background information; related to purpose, Why did you say that?" relevancy, Is that relevant to that issue? completeness Is there anything you have missed out?, etc.

6.4 My manager(s) listen(s) attentively.

6.5 My manager(s) encourage(s) multiple points of view.

6.6 My manager(s) establish(es) forums and provide(s) time and resources for identifying problems and organizational challenges.

E.g. Within the unit, or force, there is a formally established and used forum that facilitates sharing ideas, issues, concerns, and other inputs aiming for innovation.

6.7 My manager(s) criticize(s) views different from his (their) own.

Please, respond to each item in terms of how descriptive is of your work unit.

- 7.1 When a new situation (with solution unknown) arises, your unit responds by creating a working team to solve it (cope with it).**
- 7.2 When looking for a new solution/solution to a new situation (with solution unknown), your unit looks for solution using its standard organization.**
- 7.3 When small (working teams) are used, unit's leadership makes sure their interdependency is worked out.**

8.1 Your unit can be described as performance oriented. *E.g. majority of the effort is aimed on execution of current tasks.*

8.2 Your unit can be described as constantly optimizing for execution. *E.g. improvement is sought in relation to current tasks.*

Please, respond to each item in terms of how descriptive is of your work unit.

9.1 New people for the unit are selected based on their previous training.

9.2 New people for the unit are selected based on their ability to adapt and improvise.

9.3 New people for the unit are chosen for being problem solvers.

E.g. new people are chosen based mainly on their ability to synthesize information and knowledge to achieve solution.

9.4 New people for the unit are expected to be conformers, rule followers.

E.g. new people are chosen based mainly on how much they act in accordance with current customs and rules.

Please, respond to each item in terms of how descriptive is of your work unit.

10.1 When looking for new solutions, communication within the unit goes through standard chain of command (e.g. team/platoon, company, battalion, unit HQ, e.g. vertically).

10.2 When looking for new solutions, communication within the unit goes across the unit (e.g. team/platoon – team/platoon, company - company, battalion - battalion, within unit HQ, e.g. laterally).

10.3 When looking for new solutions, there is enough time to act – reflect – act again (maybe differently, e.g. adjust).

10.4 After testing a new approach to the problem, the experience is shared across the unit.

Please, respond to each item in terms of how descriptive is of your work unit.

11.1 Newly hired employees in this unit receive proper training.

11.2 Experienced employees in this unit receive periodic training/updating.

11.3 Experienced employees in this unit receive relevant training when shifting to a new position.

11.4 Experienced employees in this unit receive relevant training when new initiatives are launched.

11.5 In this unit training is valued.

11.6 In this unit, time is made available for education and training activities.

This is the end of the survey.

Thank you very much for your valuable input.

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APPENDIX B. RECRUITMENT LETTERS

Survey initial contact

[date]

Dear fellow SOF operator,

Tomorrow you will receive an email with a link to a brief online survey being conducted by a team headed by Dr. Kalev I. “Gunner” Sepp, and consisting of Dr. Frank J. Barrett and myself about SOF Organizational Learning.

This voluntary survey is part of our research about whether and how Organizational Learning is (or is not) part of SOF. This is important because the way a SOF organization learns and adapts is often critical to mission success. What we are trying to understand is how SOF senses changes in signals from its environment (both internal and external) and adapts, as well as how SOF organizations learn from experience and incorporate that learning into their future behavior.

I am writing in advance because I believe many people like to know ahead of time that they will be contacted. The study is an important one, since Organizational Learning supports innovation and allows SOF to stay contemporary and adapt to changing environments, threats, and opportunities. For this, I believe it is imperative for our SOF community to understand and thus increase our ability to learn as organizations.

Thank you for your time and consideration. It is only with the generous help and support of fellow SOF operators such as yourself that we can continue to improve SOF.

Sincerely,

David FRANTA

Student NPS, DA 699

P.S. To those who support this study, I am always ready to show some appreciation in the Trident room.

Email with link

[date]

Dear fellow SOF operator,

I am writing to ask your help and support in a study of Organizational Learning within SOF community.

It is my understanding, that you have come from a SOF background and as such, you possess a unique set of experiences that can help this study. Moreover, the mixture of our DA/699 curriculum students allows for searching for what we have in common, as well as what sets us apart. That is why all voices should be heard and listened to; that is why every participating operator makes the difference. The survey itself is not long and should only take about 20 minutes of your time. Questions asked will be related to structures and procedures enabling for Organizational Learning within our organizations.

Your answers are completely confidential and will be released only as summaries. This survey is voluntary. Although I hope you will take part- at any point you may decide not to (that includes during the survey itself as well). Since our 699 body is a unique set of individuals with unique sets of experiences, I hope you will decide to take part.

[link]

And of course, after you take part in survey I hope I will get a chance to treat you in the Trident room.

If you have any questions or comments about this study, we would be very happy to respond. At any time, please contact the Principal Investigator, Dr. Kalev I. Sepp, 831-656-2116, kisepp@nps.edu, or the Student Investigator David Franta, 831-333-6041, dfranta@nps.edu. Questions about your rights as a research subject or any other concerns may be addressed to the Navy Postgraduate School IRB Chair, CAPT John Schmidt, USN, 831-656-3864, jkschmid@nps.edu.

Thank you very much for your help and support of this study.

Sincerely,
David FRANTA
Student NPS, DA 699

Reminder

[date]

(Last week/ few day ago) I sent a link to questionnaire seeking about your insights and opinions about Organizational Learning within SOF community to you; please consider taking this short survey today.

We are truly grateful for your help because in diversity rich environment (as our DA/699) every experience and insight makes the difference, and helps us understand to the Organizational Learning within SOF community.

If you did not receive a link to the survey, or erased it previously, please let us know (Principal Investigator, Dr. Kalev I. Sepp, 831-656-2116, kisepp@nps.edu, or the Student Investigator David Franta, 831-333-6041, dfranta@nps.edu) and we will respond as soon as possible.

Sincerely,

David FRANTA

Student NPS, DA 699

Reminder 2

[date]

(Last week/ few day ago) I sent a link to questionnaire seeking about your insights and opinions about Organizational Learning within SOF community to you.

Some of our fellow SOF operators already responded. The survey is not a long one, for it should take only 25 minutes to take it. Consider taking it today.

We believe that Organizational Learning fosters innovation and as such it offers conditions for promising future of our community.

A comment on our survey procedures. A questionnaire is confidential and at no time will your name be asked from you. Protecting the confidentiality of operator's answers is very important to us, as we understand the needs of our greater SOF community.

Your participation is strictly voluntary, although as mentioned before – every operator's experience and insight can make the difference.

Sincerely,

David FRANTA

Student NPS, DA 699

P.S. If you have any questions, please feel free to contact me (David Franta, 831-333-6041, dfranta@nps.edu) or the Principal Investigator (Dr. Kalev I. Sepp, 831-656-2116, kisepp@nps.edu).

Thank you

[date]

Dear fellow SOF operator,

Please accept my sincere thanks for taking the survey.

Your responses are of great benefit to our effort, and with your help we gained a better insight onto Organizational Learning within our community.

Sincerely,

David FRANTA

Student NPS, DA 699

P.S. If you have any questions, please feel free to contact me (David Franta, 831-333-6041, dfranta@nps.edu) or the Principal Investigator (Dr. Kalev I. Sepp, 831-656-2116, kisepp@nps.edu).

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APPENDIX C. INTERVIEW PROTOCOL

Critical Incident Interview *SOF as a Flexible Learning Organization*

Before the interview starts, the written consent and consent with voice recording will be signed.

Introduction

The introduction will be used to explain:

- *purpose*
- *timeline*
- *execution of this interview*
- *Organizational Learning*
- *Learning Organization*
- *Critical Incident*.

Before proceeding any further, are there any questions at this point?

Part 1 – Demographic Questions

1. Age.
2. Rank
3. Years of service
4. # of deployments
5. Locations/ operations of deployments while in conventional units
6. Years with SOF
7. # of deployments with SOF
8. Locations/ operations of deployments
9. Years on teams/ plts

*Thank you very much for giving me those answers.
Do you have any questions so far?*

Part 2 – Critical Incident Portion

Critical Incident related questions

1. Can you describe the time when you had to learn something you did not know before and how did the occurrence of a novelty happen?

2. Can you describe the time when you had to learn something you did not know before and the idea/insight originated outside of your team/plt (other than combat part of your unit (not teams), other unit, other organization, other coalition partner, or member of a host nation)?

3. Can you describe the time when you had learned something new and you planned for it? It could be for example a new TTP, operating procedure and such? How did you (who) identify (ied) the need for such innovation?

4. After a new knowledge has been identified and employed, can you describe, how was it shared/ disseminated/ institutionalized?

5. Today, as we were discussing occurrences of a new knowledge - during your time with SOF – can you recall an opportunity when you wished you had have learned?

Follow on questions

Who was the initiator of the idea?

What were the conditions that lead to identification of a need for such novelty?

How was it identified, shared, performed, improved, disseminated, integrated?

Did it stay unchanged, or was it changed after time, has it been improved?

What were the conditions that lead to a change?

Who initiated the change, how was it received?

Were there any challenges with implementing the change? How were they negotiated with?

How did you find the source of knowledge?

Is the pattern useful – has it been used again? Yes/no, why- how?

Did the novelty get institutionalized?

Has any rejection / support by higher occurred?

Has the novelty been recorded/ captured? If yes- how?

Did you have to improvise?

What was the dynamics of learning?

Part 3 – Final Question

As a Special Operations Officer, what recommendations (ideas, tips, best practices) would you consider using in the future, in order to maximize organizational learning within SOF community?

Thank you very much for your participation in this interview.

I am very grateful for your valuable insights.

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